APPENDIX A - 1

MEMORANDUM OF UNDERSTANDING
IMPLEMENTING THE NONPOINT SOURCE WATER QUALITY PROGRAM
IN THE STATE OF IDAHO

I. AGENCIES TO THE AGREEMENT

This Memorandum of Understanding is made between: U.S. Environmental Protection Agency (EPA); Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW); Idaho Department of Lands (IDL); Idaho Department of Water Resources (IDWR); Idaho Soil Conservation Commission (SCC); Cooperative Extension Service, University of Idaho (CES); U.S. Department of Agriculture, Soil Conservation Service (SCS); U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service (ASCS); U.S. Department of Agriculture, Forest Service, Northern, Intermountain and Pacific Northwest Regions (Forest Service); U.S. Department of Interior, Bureau of Land Management (BLM).

II. PURPOSE

This agreement outlines the roles and responsibilities of the management agencies in implementing the nonpoint source water quality provisions of the Federal Clean Water Act for the State of Idaho.

State agencies may enter into interagency cooperative agreements under authority of Title 67, Chapter 23, Idaho Code.

III. AUTHORITIES, ROLES, AND RESPONSIBILITIES

U.S. Environmental Protection Agency

The Environmental Protection Agency (EPA) has authority under Section 319 of the Clean Water Act (33 U.S.C. 466 et seq.) to ensure that nonpoint source impacts to water quality are adequately addressed by the state. EPA has authority to review and approve, or disapprove, state water quality standards (Section 303). EPA has authority under Section 309 of the Clean Air Act to comment on National Environmental Policy Act (NEPA) documents developed by the federal land management agencies.

Idaho Department of Health and Welfare, Division of Environmental Quality

The Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW) is delegated authority for control of water pollution under the Clean Water Act; the Idaho Environmental Protection and Health Act of 1972, Title 39, Chapter 1, Idaho Code, as amended; and Title 1, Chapter 2, Water Quality Standards and Wastewater Treatment Requirements, Rules and Regulations of IDHW.

Under the Antidegradation Policy, IDHW is the lead state agency for holding Basin Area meetings, implementing a procedure for identifying Stream Segments of Concern and designating Outstanding Resource Waters, and implementing a coordinated monitoring program
(Executive order No. 83-23).

IDHW is the statewide designated management agency for implementation of Section 319 of the Clean Water Act. The Nonpoint Source Management Program (1989) contains the implementation actions prepared by an interagency work group. The IDHW administers (jointly with SCC) the State Agricultural Water Quality Program (Title 39, Chapter 36, Idaho Code). IDHW addresses waste treatment aspects of mining through plan and specification review, and provides direct regulatory oversight for cyanide leaching facilities (Title 39, Chapter 1, Idaho Code) . IDHW addresses forest practices through implementation of the Forest Practices Water Quality Management Plan (1988), revision of water quality standards, and assessment of BMP effectiveness (Title 39, Chapter 13, Idaho Code). IDHW is responsible for implementation of the State Nutrient Management Act (Title 39, Chapter 1, Idaho Code), and Rules and Regulations for Nutrient Management (Title 1, Chapter 16).

Pursuant to the Ground Water Quality Protection Act, IDHW is designated as the primary agency to coordinate and administer ground water quality protection programs for the State of Idaho (Title 39, Chapter 1, Idaho Code). IDHW has the responsibility for collecting ground water quality monitoring data for management of regional and local ground water quality. IDHW is the lead agency in coordinating the preparation of a Comprehensive Ground Water Quality Protection Plan and Ground Water Quality Standards with the Ground Water Council. IDHW addresses ground water quality protection through the permitting of land application of waste water (Title 1, Chapter 17, Idaho Code) and regulation of on-site sewage disposal systems (Title 39, Chapters 1 and 16, Idaho Code). IDHW is the designated lead agency for the Public Drinking Water Program (Title 37, Chapter 21 and Title 39, Chapters 1 and 18, Idaho Code), the Underground Storage Tank Program and the Wellhead Protection Program. Agricultural ground water issues are addressed through the state's Nonpoint Source Section 319 Program and the Ground Water Quality Council.

Idaho Department of Lands

The Idaho Department of Lands (IDL) has authority to administer the Idaho Forest Practices Act (Title 38, Chapter 1, Idaho Code), the Dredge and Placer Mining Protection Act and the Idaho Surface Mining Act (Title 47, Chapters 13 and 15, Idaho Code), and the Idaho Lake Protection Act (Title 58, Chapter 13, Idaho Code). Under the Antidegradation Policy IDL is designated as the lead agency for surface mining, dredge and placer mining, and forest practices on all lands within the state (Executive order 88-23).

IDL has the responsibility to ensure compliance with forest practice BMPs on all lands in the state. on state forest lands, IDL has the responsibility to apply BMPs which will provide for protection of beneficial uses of water. On private lands, IDL has the responsibility to administer the Forest Practice Act, Rules and Regulations, and take enforcement action when needed. IDL provides other state

agencies the opportunity to review and comment on mine applications, BMP design, and reclamation plans. Pre-operational site reviews and subsequent site inspections are often conducted in coordination with other state and federal agencies.

IDL has entered into separate MOUs with the USFS and BLM to coordinate the administration of their respective laws and regulations pertaining the mining operations on National Forest System and Bureau of Land Management lands.

Idaho Department of Water Resources

The Idaho Department of Water Resources has authority to regulate stream channel alterations under the Stream Channel Protection Act (Title 42, Chapter 38, Idaho Code) and the safety of most impoundment structures, including irrigation and stock pond facilities, and mine tailings impoundments under the Dam Safety Act (Title 42, Chapter 17, Idaho Code). Wastewater disposal by injection wells is regulated under Title 42, Chapter 39, Idaho Code. The Idaho Department of Water Resources also has statutory responsibility for administering the appropriation and allotment of surface and ground water resources of the state, including geothermal resources, and to protect the resources against waste and contamination, Title 42, Chapter 2, Idaho Code.

IDWR has the responsibility to administer the Stream Channel Protection Act on all continuously flowing streams within the state boundaries for any activity which will alter a stream channel. IDWR has entered into separate MOUs with the USFS, BLM, Idaho Department of Transportation and other road districts to protect streams and their associated environments by close coordination and cooperation on all projects with the potential to alter stream channels. Other projects must seek individual permits through an application and permit process involving all interested agencies, and the Army Corps of Engineers, for review under Section 404. Applications are processed simultaneously under a joint state and federal review with separate approvals. IDWR cannot subrogate permitting authority.

IDWR has the responsibility to maintain the natural resource geographic information system for the state as well as a comprehensive ground water data system which is accessible to the public. This is an integral part of the ground water protection program.

Idaho Department of Agriculture

Authority for the Department's role for control of nonpoint source pollution in agriculture comes from the Idaho Pesticide Law (Title 22, Chapter 34, Idaho Code), the Idaho Fertilizer Law (Title 22, Chapter 6, Idaho Code), and the Idaho Chemigation Law (Title 22, Chapter 14, Idaho Code). The Idaho Department of Agriculture is responsible for regulating the use of pesticides and fertilizers and for licensing applicators, and provides assistance in the monitoring, development and evaluation of the effectiveness of best management practices relating to agricultural chemicals. The Department has a cooperative enforcement agreement with the Environmental Protection Agency (EPA) to enforce the provisions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) in Idaho. The

Department coordinates with the Department of Health and Welfare - Division of Environmental Quality (DEQ) and the Idaho Department of Water Resources (IDWR) in administrating the Idaho Ground Water Quality Protection Act of 1989.

Authority for the Department's role for control of dairy waste in agriculture comes from the various Chapters which regulate the Idaho dairy industry (Title 37, Chapter 3, 4, 5, and 7 Idaho Code), the Pasteurized Milk Ordinance, as amended, and the regulations adopted pursuant thereto which authorizes the Department to inspect the sanitary conditions of dairy products, dairies, dairy processing facilities, warehouses, etc.

State Soil Conservation Commission

The responsibilities of the State Soil Conservation Commission, Department of Lands, are defined by Title 22, Chapter 27, Idaho Code. The Commission offers assistance to the supervisors of the 51 Soil Conservation Districts (SCDs), organized as provided in the Soil Conservation District Law in carrying out their powers and programs.

SCC jointly (with IDHW) administers the State Agricultural Water Quality Program (SAWQP). SCC is authorized to contract with IDHW to provide technical assistance for SAWQP projects. The State Agricultural Pollution Abatement Plan designates the SCC and SCDs as the agricultural nonpoint source management agencies at the state and local level, respectively. The SCDs may enter into contracts with IDHW for planning and implementation of ground water and surface water projects pursuant to rules and regulations of the Agricultural Water Quality Program (Title 39, Chapter 36, Idaho Code).

The SCC is the lead agency for coordination, implementation of the Antidegradation Policy for agricultural activities through the SCDs (Executive order 88-23). The Commission works to secure the cooperation and assistance of state and federal agencies in the work of the Districts.

University of Idaho, Cooperative Extension Service

The extension system, under the Smith-Lever Act of 1914, was designated as the education arm of the United States Department of Agriculture. In July of 1989, the USDA Water Quality Program that supports the President's Water Quality initiative designated Extension as having the key role in water quality education and a lesser role of technical assistance.

Extension has responsibility to prepare news items, bulletins, publications and educational material to inform and educate the general public about water quality issues and enacted legislation. Extension provides agri-chemical application and rate recommendations, based on research, and consistent with water quality goals.

Cooperation and coordination with other agencies is of utmost importance. Extension will assist in building staff capacity for the planning, delivery and analysis of water quality procedures. Production

management systems will be expanded and enhanced through cooperation with SCS in updating field office technical guides, other references, and through organized professional training. Extension is one of three lead agencies (CES, SCS, ASCS) in implementing USDA water quality initiatives such as hydrologic unit planning and demonstration project activities.

United States Department of Agriculture, Soil Conservation Service

The Soil Conservation Service (SCS) receives its authority and direction from the Soil Conservation and Domestic Allotment Act, Section 7 (Public Law 46-74; USC 590a (3)), the Agriculture and Consumer Protection Act, Title 10, and the Agricultural Credit Act, Title 4. The SCS provides technical assistance to units of government and private land users for the planning and implementation of water quality measures and initiatives.

The SCS maintains, periodically revises, and supplements the Field Office Technical Guide which serves as one source for the state to consider in adopting agricultural best management practices.

The SCS administers USDA-SCS programs such as PL-566 Small Watershed Program, Conservation Operations, Resource Conservation and Development (RC&D), River Basin Planning, Soil Survey, Snow Survey, Emergency Watershed Protection, and the Plant Materials Program, each of which has a water quality component. The SCS shares leadership with ASCS and CES in implementing USDA water quality initiatives such as hydrologic unit planning and demonstration project activities.

The SCS assists in developing tools to quantify environmental and economic effects of BMPS, and supports and encourages more resource data collection and research, including monitoring, in the areas of surface and ground water.

Agricultural Stabilization and Conservation Service

The ASCS administers a number of agricultural programs, several of which directly benefit Idaho's water quality. Conservation and land-use adjustment assistance is provided through sharing with individual farmers the cost of installing needed soil, water, woodland, and wildlife conserving practices under the annual and long-term Cost-Share Programs, the Conservation Reserve Program, and the Rock Creek Rural Clean Water Program. The ASCS shares leadership with the SCS and CES in implementing USDA water quality initiatives; which include hydrologic unit planning and demonstration project activities, and Agricultural Conservation Program (ACP) special water quality projects.

United States Department of Agriculture, Forest Service

The Forest Service, under the Organic Act Of 1897 (16 U.S.C. 551), the Multiple Use Sustained Yield Act of 1960 (16 U.S.C. 528), as amended, and the National Forest Management Act of 1976 (16 U.S.C. 1600), is directed to regulate the occupancy and use of National Forest System Lands.

The Clean Water Act, as amended, (33 U.S.C. 1323) directs the Forest Service to meet state, interstate and local substantive as well as procedural requirements respecting control and abatement of pollution in the same manner, and to the same extent as any nongovernmental entity.

Executive Order 12372 (September 17, 1983) directs the Forest Service to make efforts to accommodate and foster intergovernmental partnership by relying on state processes, to the extent feasible for state coordination and review of proposed federal financial assistance and direct federal development.

The U.S. Forest Service is responsible for the management of over 20.4 million acres of National Forest Service lands in Idaho. These are public lands that form the headwaters of many of Idaho's important river systems. The Forest Service has the statutory authority to regulate, permit and enforce land-use activities on the National Forest System lands that affect water quality.

As the designated management agency, the Forest Service is responsible for implementing 1) nonpoint source (NPS) pollution control; and 2) the Idaho State Water Quality Standards on National Forest System lands. The basis of the Forest Services's nonpoint source pollution control policy stems from the: National Nonpoint Source Policy (December 12, 1984) ; Forest Service Nonpoint Strategy (January 29, 1985); and the USDA Nonpoint Source Water Quality Policy (December 5, 1986). The Forest Service's water quality policy is to: 1) promote the improvement, protection, restoration and the maintenance of water quality to support beneficial uses on all national forest service waters; 2) promote and apply approved best management practices to all management activities as the method for control of NPS pollution; 3) comply with established state or national water quality goals; and 4) design monitoring programs for specific activities and practices that may affect or have the potential to affect in-stream beneficial uses on National Forest System lands.

The Forest Service also coordinates all water quality programs, on National Forest System lands within its jurisdiction, with the local, state and federal agencies, affected public lands users, adjoining land owners, and other affected interests.

Bureau of Land Management

The Taylor Grazing Act of 1934, as amended, authorizes livestock grazing on public land and provides for protection from erosion and soil deterioration.

The Federal Land Policy and Management Act of 1976, as amended, requires that public lands be managed in a manner that will protect the quality of water resources, and that in developing or revising land use plans the Secretary shall provide for compliance with applicable pollution control laws, including state and federal air, water, and noise, implementation plans.

The Public Range Lands Improvement Act of 1973 requires that the public lands be managed to maintain and improve condition of rangeland values.

The Federal Water Pollution Control Act of 1972, as amended, requires federal agencies to meet state, interstate, and local substantive as well as procedural requirements respecting control and abatement of pollution. Executive Order 12372 (September 17, 1983) directs BLM to foster intergovernmental partnership by relying on state processes for coordination and review of proposed federal financial assistance and federal programs.

BLM is responsible for the administration, management and protection of 12 million acres of public land in Idaho. It has statutory authority to regulate, license, and enforce land use activities that affect water quality. BLM is the designated nonpoint source managements agency on the lands under its management. The BLM's goals are to maintain or improve surface and ground water quality consistent with state and federal water quality standards, minimize harmful consequences of activities that result in nonpoint source pollution, and inventory, monitor, and evaluate water quality data necessary for the proper management of the public lands. The BLM also coordinates all water quality programs with the local, state and federal agencies, affected public land users, adjoining land owners, and other affected interests.

IV. DEFINITIONS

Best management Practice (BMP) A practice or combination of practices determined by the state to be the most effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources. (IDHW, 1985. Idaho Water Quality Standards.)

Designated Management Agency: An agency identified by an Area Waste Treatment Plan or the Nonpoint Source Management Program and designated by the Governor as lead in implementing the program on lands which the agency administers.

Federal Lands: For this agreement only, lands administered by the USDA, Forest Service, and USDI, Bureau of Land Management.

Federal Land Management Agencies: For this agreement only, lands administered by the USDA, Forest Service, and USDI, Bureau of Land Management.

Nonpoint Source Pollution: Ground and surface water pollution that comes from many varied, non-specific and diffused sources and can be categorized by the general land disturbing activity that causes the pollution (Title 39, Chapter 36, Idaho Code) .

V. NOW THEREFORE THE PARTIES MUTUALLY AGREE:

1 . To implement the feedback loop concept as described in the Idaho Water Quality Standards and Wastewater Treatment Requirements (Section 16.01.2050,06. and Section 16-01.2300,04). This standard is based on implementation of BMPs and use of a process to evaluate the effectiveness of BMPs in restoring and maintaining the beneficial uses of the waters of the state as designated in the Idaho water quality standards.

2 . To be consistent with the Idaho Nonpoint source Management Program, 1989, as required by Section 319 of the Clean Water Act. For federal agencies, criteria for federal consistency are contained as a checklist in the Nonpoint Source Management Program.

3 . To jointly coordinate monitoring activities as outlined in the Coordinated Nonpoint Source Water Quality Monitoring Program for Idaho, 1990 (IDHW). Included are development of standard monitoring techniques, cooperative monitoring programs, and sharing of water quality data.

4 . To provide information on water quality conditions and effectiveness of BMPs biannually to IDHW for inclusion in the Idaho Water Quality Status Report (Section 305-b) and updates of the Nonpoint Source Assessment (Section 319) of the Federal Clean Water Act.

5 . To participate in the Basin Area Meetings implementing the Antidegradation Policy.

6. To utilize a common data base, such as EPA's STORET and BIOS system or IDWR's Environmental Data Management System as the central repository for water quality data in the state and to coordinate the training to implement such a system.

7 . To develop and encourage interagency participation in water quality training programs.

8. To develop and implement specific agreements on topics such as agriculture, forestry, and mining nonpoint source water quality control programs. These agreements will be incorporated as appendices to this memorandum.

VI. IDAHO DEPARTMENT OF HEALTH AND WELFARE AGREES:

1. To coordinate water quality management planning and implementation efforts by the state with other state and federal agencies and keep them updated on any changes to state standards, regulations or guidelines.

2 . To invite other Idaho State and federal agency representation on policy or technical advisory committees that relate to water quality issues.

3. To review the federal agency's listing of proposed projects and activities scheduled for NEPA process, participate in those affecting water quality and provide timely review comments for finalizing the NEPA documents.

4. If a drainage has a significant acreage of mixed ownership, the Department shall take the lead in coordinating participation of various landowner, development of the monitoring plan and implementation of the field work.

VII. THE FEDERAL LAND MANAGEMENT AGENCIES AGREE

1 . That federal agencies will be subject to, and comply with, state requirements in the same manner and to the same extent as any other party to this agreement, or other nongovernmental entity.

2 . To annually, by May 1, develop or update water quality monitoring plans to meet the intent of the Antidegradation Policy and the NPS Water Quality Management Program, and provide to IDHW monitoring results information relative to the feedback loop.

3. To annually provide, to the designated IDHW and IDL offices, by May 1, a general schedule of proposed land-disturbing activities during the forthcoming year. Projects and programs for which the federal agencies specifically request assistance will be identified.

4. To involve the IDWR, IDHW and IDL at the appropriate time in the NEPA process for projects having significant potential to impact beneficial water uses.

5. To incorporate the ten items for Federal Consistency Review Criteria (pages 26-28 of the Idaho Nonpoint Source Management Program) into NEPA documents.

6. To insure that all new and renewed plans, leases, contracts, special use authorizations, easements, right-of-way documents and other agreements involving permitted activity on federal lands, contain provisions for compliance with all water pollution control statutes and regulations (federal and state) under the authority of the Clean Water Act.

7 . To provide in-house training to federal Personnel to increase employee awareness of, and sensitivity to, the importance of maintaining water quality, potential impacts to water quality, applicable state and federal law, and state-of-the-art techniques used to prevent water quality problems.

VIII. IT IS FURTHER AGREES:

1. That in cases of conflict between agency missions, the agencies will provide an opportunity for informal conflict resolution prior to taking other actions provided by law.

2 . That nothing in this agreement shall be construed as limiting or affecting in any way the legal authority of the federal agencies in connection with the proper administration and protection of federal lands in accordance with federal laws and regulations.

3. That nothing in this agreement shall be construed as obligating the signing parties to expend funds in any contract or other obligation for future payment of funds or services in any contract in excess of those available or authorized for expenditure.

4. To periodically (two-year interval) review this Memorandum of Understanding and make revisions and updates as necessary to meet the purpose of the agreement. Amendments shall become effective following written approval by all parties.

5. That this agreement shall become effective as soon as it is signed by the parties and shall continue in force unless terminated by mutual written consent or any party upon thirty days notice in writing to the other parties of intention to terminate upon a date indicated.

6. That no member of, or delegate of Congress, or Resident Commissioner of the United States, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom.

7. That each provision of this agreement is subject to the laws and regulations of the State of Idaho, and the laws and regulations of the United States.

8. The program or activities conducted under this agreement or memorandum of understanding will be in compliance with the nondiscrimination provisions contained in the Titles VI and VII of the Civil Rights Act of 1964, as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, and the Age Discrimination Act of 1975.

They will also be in accordance with regulations of the Secretary of Agriculture (7 CFR-15, Subparts A & B), which provide that no person in the United States shall on the grounds of race, color, national origin, age, sex, religion, marital status, or handicap, to be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal financial assistance from the Department of Agriculture or any agency thereof.

That the Memorandum of Understanding of September 1, 1988, between the Forest Service and Department is replaced upon approval and execution of this Memoranda of Understanding and its appendices.

This Memorandum of Understanding is made between: U.S. *Environmental Protection Agency (EPA); Idaho Department of Health and Welfare, Division of Environmental Quality (IDHW); Idaho Department of Lands (IDL); Idaho Department of Water Resources (IDWR); Idaho Soil Conservation Commission (SCC) ; Cooperative Extension Service, University of Idaho (CES); U.S. Department of Agriculture, Soil Conservation Service (SCS); U.S. Department of*

Agriculture, Agricultural *Stabilization and Conservation Service (ASCS); U.S. Department of Agriculture, Forest Service, Northern, Intermountain and Pacific Northwest Regions (Forest Service); U.S. Department of Interior, and* the Bureau *of Land Management (BLM).*

Lynn McKee
U.S. Environmental Protection Agency

Richard Donovan
Idaho Department of Health & Welfare

Stan Hamilton
Idaho Department of Lands

R. Keith Higginson
Idaho Department of Water Resources

Wayne E. Faude
Idaho Soil Conservation Commission

Leroy Luft
Cooperative Extension Service

Paul S. Calverley
Soil Conservation Service

Trent Clark
Agricultural Stabilization & Conservation Service

David F. Jolly
US Forest Service, Region 1

Grey Reynolds
US Forest Service Region 4

John F. Butruille
US Forest Service, Region 6

Delmar Vail
Bureau of Land Management

Dr. W. G. Nelson
Idaho Department of Agriculture

Appendix A-1

APPENDIX A - 2

FORESTRY PRACTICES APPENDIX TO THE MEMORANDUM OF UNDERSTANDING IMPLEMENTING THE NONPOINT SOURCE WATER QUALITY PROGRAM IN THE STATE OF IDAHO

I. PARTIES TO THE AGREEMENT

Idaho Department of Health and Welfare, Division of Environmental Quality, hereinafter referred to as IDHW. Idaho Department of Lands, hereinafter referred to as IDL. U.S. Department of Agriculture, Forest Service, Intermountain, Northern and Pacific Northwest Regions, hereinafter referred to as the Forest Service. Bureau of Land Management, Idaho State Office, hereinafter referred to as the BLM.

II. PURPOSE

The purpose of this appendix to the Memorandum of Understanding Implementing the Nonpoint Source Water Quality Program in the State of Idaho is to coordinate water pollution control activities on federal, state, and private forest lands in Idaho to protect, maintain and restore the beneficial uses, as defined in the Idaho water quality standards, of the waters of the state.

III. LEGAL AUTHORITIES

The legal authorities of the agencies participating in forest practices water quality management are listed in the Memorandum of Understanding Implementing the Nonpoint Source Water Quality Program in the State of Idaho.

IV. DEFINITION

Best Management Practice (BMP): For this appendix, means a practice or combination of practices determined by the Land Board, in consultation with the IDL and the Idaho Forest Practices Act (IFPA) Advisory Committee, to be the most effective and practicable means of preventing or reducing the amount of nonpoint source pollution generated by forest practices. BMPs at a minimum shall include those management practices included in the Rules and Regulations pertaining to the Idaho Forest Practices Act (IDAPA 20.02.01); and the Rules and Regulations pertaining to the Idaho Stream Channel Protection Act (IDAPA 37.I). IDHW has listed the practices in the rules and regulations as approved BMPs in the Idaho Water Quality Standards and Wastewater Treatment Requirements, as amended (IDAPA 16.01.02300,05). Site specific BMPs, above and beyond those listed in this definition, may be necessary to avoid an impairment of beneficial uses.

V. OBJECTIVES

The agencies party to this agreement mutually agree to implement the:

A. Water quality protection provisions of the Rules and Regulations pertaining to the Idaho Forest Practices Act (IDAPA 20.02.01);

B. Idaho Forest Practices Water Quality Management Plan, as revised (1988);

C. Forestry sections of the Idaho Nonpoint Source Management Plan Program, 1989.

VI. AGREEMENTS

Therefore, the parties agree as follows:

A. The IDHW agrees:

1.To coordinate water quality management planning and implementation efforts with the:

a. IDL, where state and private forest lands administered or regulated by IDL are involved;

b. Forest Service where National Forest Service lands are involved; and

c. BLM where public lands administered by the BLM are involved.

2.To coordinate and chair the statewide interagency Forest Practices Audit every fourth year and involve IDL, the Forest Service, private forest land owners, and the BLM on the Forest Practices Audit Team.

3.To provide technical support to and participate on the forest practices cumulative effects task force.

4.To request in writing the IDL conduct a timely evaluation and modification of the relevant forest practice rule(s) should monitoring and surveillance or other evidence indicate that a IFPA rule or regulation is not providing adequate protection of water quality to insure full protection of beneficial use as defined in the Idaho water quality standards.

5.To include the following information in a requested modification of an IFPA rule or regulation:

a. Reference to the rule to be modified on a statewide, geographic or watershed basis.

b. Reference to evidence which indicates the rule is not fully protecting beneficial uses.

c. Name(s) of IDHW staff who may be contacted for further information.

d. Recommended additions or modification to the forest practices rules.

6.In the event that beneficial uses are not protected, IDHW will pursue enforcement actions in cooperation with the appropriate agencies.

B. The IDL agrees:

1.To comply with the water quality protection provisions of the Idaho Forest Practices Act Rules and Regulations (IFPA) on state and private forest lands.

2.To provide training to IDL staff, forest landowners, and operators regarding potential impacts to water quality, applicable state and federal law and state-of-the-art techniques used to prevent water quality problems.

3.To review variance policies, developed by federal agencies, to assure that they meet the substantive and procedural requirements of the water quality protection provisions of the IFPA rules and regulations.

4.To provide training to federal agencies regarding interpretation and implementation of the water quality protection of the IFPA rules and regulations.

5.To provide federal agencies technical support in the administration and implementation of the water quality protection provisions of the IFPA rules and regulation on federal lands.

6.To conduct interim internal reviews of BMPs by annually examining a representative sample (10 per ownership category) of timber related projects and prepare written BMP evaluation reports. Summaries of these reports, and similar reports from the federal agencies, will be provided to IDHW for inclusion in the annual Forest Practices Water Quality Management Plan Report.

7.To participate in the statewide Forest Practices Audit Team, provide necessary information for selection of timber sales, and provide technical expertise in audit procedures.

8.To notify the Federal agencies of suspected non-compliance with water quality protection provisions of the IFPA rules and regulations on federally administered lands.

9.To notify IDHW of all suspected occurrences of beneficial use impairments on state and private forest lands, and to coordinate enforcement efforts with the appropriate agencies.

10.To conduct an evaluation of any request for an alternation of an IFPA rule or regulation and respond in writing within 30 days indicating action which will be taken. The IDL may deny the request, stating the reasons for denial, refer the request to the Forest Practices Act Advisory Committee, or initiate rule making procedures in accordance with section 67-5203, Idaho Code.

11.To involve the Forest Practices Act Advisory Committee in all requests for a modification of an IFPA rule or regulation by soliciting their technical advice and recommendations. The director of IDL will consider all factors involved when making recommendations for modifications of an IFPA rule or regulation to the State Board of land Commissioners.

C. The Federal Agencies Agree:

1.To comply with the water quality protection provisions of the IFPA Rules and Regulations.

2.To conduct interim internal reviews of best management practices (BMPs) by annually examining a representative sample (target 10%) of timber related projects on lands they administer and prepare written BMP evaluation reports. Summaries of these reports will be provided to IDL and IDHW, for inclusion in the annual Forest Practices Water Quality Management Plan Report.

3.To participate in the statewide Forest Practices Audit Team, provide necessary information for selection of timber sales and provide technical expertise in audit procedure.

4.To develop and implement a variance policy that assures that when a specialized BMP is used, instead of a specific IFPA rule or regulation, that the practice selected protects beneficial uses.

5.To provide technical support to IDL and participate on the forest practice cumulative effects tasks force.

6.To notify IDHW of any suspected occurrences of beneficial use impairment that occur on National Forest System lands and public lands administered by the BLM.

7.To notify IDL of all suspected non-compliance with water quality protection provisions of the IFPA rules and regulations on federally administered lands.

8.To provide technical support, to IDL, in the administration and implementation of the water quality protection provisions of the rules and regulations pertaining to the IFPA on federally administered lands.

D. It is mutually agreed:

1.The mechanism for implementing pollution control on forest practices is described in the State of Idaho *Forest Practice Water Quality Management Plan*, 1988, as revised.

2.That nothing in this appendix shall be construed as limiting, or affecting in any way, the legal authority of the participating agencies in connection with the proper administration and protection of affected lands in accordance with federal and state laws and regulations.

3.That nothing in this appendix shall be construed as obligating the participating agencies to expend funds in any contract, or other obligation, for future payments of funds or services in excess of those available or authorized for expenditure.

4.To periodically (two year interval) review this cooperative appendix, and make revisions and updates as necessary to meet the purpose of the appendix. Amendments shall be effective following written approval by all parties to the appendix.

5.That the appendix shall become effective as soon as it is signed by the parties, and shall continue in force unless terminated by mutual written consent, or by any party, upon sixty days notice in writing to the other parties of intention to terminate upon a date indicated.

6.That this appendix supersedes the MOU between: IDHW and IDL dated 1/8/88; IDHW and the Forest Service dated 9/1/88; and IDHW and BLM dated 9/21/79.

IN WITNESS THEREOF, the parties hereto have caused this cooperative appendix to be executed.

IDAHO DEPARTMENT OF HEALTH AND WELFARE

By_____Date _____

Jerry L. Harris
Director, Idaho Department of Health and Welfare

IDAHO DEPARTMENT OF LANDS

By_____Date _____

Stanley F. Hamilton
Director, Idaho Department of Lands

United States Forest Service

By_____Date _____

Gray F. Reynolds
Regional Forester, Intermountain Region

By_____Date _____

David F. Jolly
Regional Forester, Northern Region

By_____Date _____

John E. Lowe
Regional Forester, Pacific Northwest Region

BUREAU OF LAND MANAGEMENT

By_____Date _____

Delmar D. Vail
State Director, Bureau of Land Management

APPENDIX A - 3

APPENDIX TO THE MEMORANDUM OF UNDERSTANDING IMPLEMENTING
THE NONPOINT SOURCE WATER QUALITY PROGRAM .
IN THE STATE OF IDAHO SPECIFYING IMPLEMENTATION
OF THE MINING WATER QUALITY PROGRAM

I. AGENCIES TO THE AGREEMENT

This Appendix to the Memorandum of Understanding (MOU) is made between the Idaho Department of Lands (IDL), Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ), Idaho Department of Water Resources (IDWR), Idaho Department of Fish and Game (IDFG), U.S. Department of Agriculture, Forest Service, Northern, Intermountain and Pacific Northwest Regions (Forest Service); the United States Environmental Protection Agency (EPA); and the U.S. Department of Interior, Bureau of Land Management, Idaho State Director (BLM).

II. PURPOSE AND SCOPE

This is an appendix to the memorandum of understanding IMPLEMENTING the nonpoint source water quality program in the State of Idaho. The purpose of this agreement is to coordinate the implementation of the antidegradation policy of the state and the nonpoint source water quality management program for all mining operations. The Appendix also describes the relationship and supporting activities of the agencies with regard to nonpoint source discharges which have surface or ground water quality impacts, generated by mining activities under their jurisdiction. This Appendix is not intended to transfer any regulatory authorities or responsibilities from coordinating agencies to the lead agency.

111. LEGAL AUTHORITIES

The legal authorities of the agencies participating in water quality management, as it relates to mining, are listed in the Memorandum of Understanding IMPLEMENTING the Nonpoint Source Water Quality Program in the State of Idaho.

IV. DEFINITIONS

Best Management Practice (BMP): A practice or combination of practices determined by the state to be the most effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources (IDHW, 1985). Idaho Water Quality Standards and Wastewater Treatment Requirements). For the purpose of this Appendix, mining BMPS are listed in the Idaho Surface Mining Act, Dredge and Placer Mining Protection Act, and BMP Manual for Mining Operations in Idaho. BMPS may be comparable to soil and water conservation practices required by the USFS or BLM.

Coordinating Agency: An agency which is party to this agreement and which works with the lead agency to implement the nonpoint source surface and ground water quality programs for mining operations under its jurisdiction.

Coordination Meeting: A meeting of the lead and coordinating agencies with a mining project representative, usually conducted on the project site, to review progress and compliance with agency regulations and the approved plans. Frequency of meetings is dependent on project size and complexity.

Designated Uses: The designated uses for which waters of the State are to be protected include: agricultural and domestic water supplies; cold and warm water biota; salmonid spawning; primary and secondary contact recreation; industrial water supplies; wildlife habitat; and aesthetics. Special resource waters may be designated and listed in the Idaho Department of Health and Welfare Rules Sections 01.02110 - 01.02160. Modification of these rules can be made only through amendment, pursuant to Section 67-52, Idaho Code. Idaho water right law which prioritizes beneficial uses of water as those uses for mining, agriculture, domestic, commercial purposes and fish and wildlife does not supersede the Idaho Environmental Protection and Health Act which guarantees the protection of water quality for coexisting uses.

Field Inspection: A meeting or review conducted at the mine site by a regulatory agency to ensure compliance with that agency's specific laws, rules, plans or permits. Field inspections are conducted as deemed necessary by the regulatory agency for the proper administration of its laws, rules, plans or permits.

Lead Agency: An agency, either BLM, USFS, or IDL, which has the lead responsibility for coordinating the administration of the approved plan of operation, reclamation plan or permit, and inspecting the operation for compliance with the approved plan of operation or reclamation plan.

Nonpoint Source Pollution: Ground and surface water pollution that comes from many varied non-specific and diffused sources and can be categorized by the general land disturbing activity that causes the pollution [Idaho Code title 39, chapter 36).

V. GENERAL

The agencies mutually agree that:

1. For operations on federal mining claims, the lead agency will be determined as outlined in the Memorandums of Understanding between the Idaho Department of Lands and the U.S. Department of Interior, Bureau of Land Management (January 28, 1987) and the U.S. Department of Agriculture, Forest Service, Regions 1 and 4 (November 27, 1985). These memoranda of understanding are intended to coordinate the administration by the Idaho Department of Lands and U.S. Forest Service or U.S. Bureau of Land Management of their respective authorities and regulations pertaining to mining operations on private, state, and federal lands under state and federal jurisdictions. These memoranda are also intended to achieve efficient use of manpower and appropriations by reducing unnecessary, duplicative, and overlapping applications, notices, and inspections by Department of Lands, U.S. Forest

Service, and Bureau of Land Management, and double bonding, to the extent legal and practicable.

2. The lead agency and the IDL will require and ensure that BMPS are designed, implemented and maintained at each operation for the purpose of protecting or maintaining the designated uses of the waters of the state, and for providing protection for public health and safety.

3. In cases of conflict between agency opinions, requests, or time frames, the agencies will provide an opportunity for informal conflict resolution prior to taking independent actions provided by law.

4. Project reviews and coordination for federal, state, and local permit evaluations will be scheduled concurrently with the National Environmental Policy Act (NEPA) process, when NEPA is applicable. The IDL is responsible for ensuring that mine operators implement and maintain their BMPS to protect designated uses of waters in Idaho.

5. The DEQ is responsible for monitoring water quality and notifying the IDL when mining operations may be degrading waters of Idaho.

6. Each managing agency should consider modifying existing mining regulations or policies as needed to incorporate the provisions of Idaho's Ground Water Quality Plan.

VI. AGENCY REVIEW AND PRE-PROJECT COORDINATION

The Idaho Department of Lands will:

This section will apply when a reclamation plan or placer mining permit is required by the IDL. Coordinating agencies should be aware that mining and milling on National Forest System lands and BLM administered lands, which do not require a placer permit or reclamation plan, are reviewed under the NEPA process.

1) Forward one copy of a complete dredge and placer mining permit application, plan of operation or reclamation plan to the coordinating state and federal agencies for review and comment. The application shall include information identifying foreseeable site-specific nonpoint sources of water quality impacts and a water management plan which outlines now ground and surface water quality will be protected during each phase of the mining operation.

2) When the director of the IDL determines, after consultation with DEQ, that there is a reasonable potential for nonpoint source pollution of adjacent surface and ground waters, the director shall request, and the operator shall provide to the director, baseline pre-project water monitoring information and furnish specified ongoing monitoring data during the life of the project as required in the monitoring plan. When monitoring is required, IDL will forward a copy of the monitoring plan and information to the DEQ.

3) Specify the lead agency and their field contact and phone number.

4) Specify the IDL field contact and phone number.
5) Specify the date that all comments must be received by the IDL. Also, specify whether IDL will act as a clearinghouse for state agency comments or whether the state agencies should comment directly to the federal agency responsible for the NEPA process.

6) After coordinating schedules with the coordinating agencies, specify the date and time for a field review or the date by which a review must be requested.

7) Incorporate the coordinating agency's written comments, that are relevant to IDL's authorities, in the dredge and placer mining permit, or reclamation plan. Verbal comments will be accepted by the due date provided they are followed-up with written comments within specified time frames. Plans or I permits may be approved with conditions that address a coordinating agency's concerns. The IDL should notify an operator when a coordinating agency does not feel that the proposed BMPS are adequate to protect water quality.

8) The best management practices, initially proposed by an operator, shall be considered accepted at the time the IDL approves the reclamation plan or placer permit.

The U.S. Forest Service will:
1) Provide a scoping statement to the coordinating agencies for projects that require an Environmental Assessment or an Environmental Impact Statement on National Forest System lands.

2) Provide one (1) copy of the complete plan of operation to the IDL.

The Bureau of Land Management will:
1) Provide a scoping statement to the coordinating agencies for projects that require an Environmental Assessment or an Environmental Impact Statement on BLM land.

2) Provide one (1) copy of the complete plan of operations to the IDL.

3) Forward Notices to the IDL.

The US. Environmental Protection Agency will:
1) Administer and oversee the implementation of the Clean Water Act Sections 402 and 319, which require the states to address and control point and nonpoint source impacts to water quality.

2) Coordinate with IDL to complete a field review, when any portion of the operation falls under the administration of the EPA.

3) Coordinate with the IDL and DEQ to develop and establish any EPA required water quality monitoring programs.

The Division of Environmental Quality will:

1) Coordinate with the IDL to complete field reviews.

2) Review the dredge and placer mining permit application, plan of operation or reclamation plan with respect to the following areas:

- The need for a monitoring plan.
- The location of water quality monitoring sites.
- Identification and use of BMPS.
- Adequacy of wastewater impoundments under 30 feet in height, such as settling ponds and tailings ponds.
- Potential threats to surface and ground water quality.
- Handling and storage of hazardous an deleterious materials, such as fuels, chemicals, and toxic substances.
- Other laws and rules administered by DEQ.

3) Forward comments, verbally with written follow-up at a minimum, to IDL for a reclamation plan, plan of operation or placer permit by the time specified by IDL.

4) Consult with the IDL and the lead agency to determine if there is a reasonable potential for nonpoint source pollution. When pre-project baseline and ongoing water quality monitoring is necessary; request, through IDL, that the operator provide such water quality monitoring data. The DEQ will specify the general locations, frequency, parameters, duration and methods of sampling that need to be in the monitoring plan. The operator is responsible for submitting a site specific monitoring plan for approval.

5) Review and approve water quality monitoring plans for operations required to have them.

6) The DEQ has responsibility for permitting and administration of a cyanidation facility. They will provide notice to the lead and coordinating agencies of receipt of an application for a cyanidation permit.

The Department of Fish and Game will:

1) Conduct, review and approve, or provide fisheries monitoring when the operator is required by IDL, to monitor fisheries.

2) Provide information, to the IDL and the lead agency, regarding potential threats to fish, aquatic biota, avian and terrestrial wildlife, and recommend mitigation measures.

3) Provide information to the IDL regarding the need for permits required by the IDF&G, by the time specified by IDL.

The Department of Water Resources will:

1) Coordinate with IDL to complete a field review, when any portion of the operation falls under the administration of the IDWR.

2) Review and comment on the permit application, operation or reclamation plan with respect to the following regulatory functions of the IDWR:
   a. The need for a Stream Channel Alteration Permit;
   b. The need for dam or tailings dam construction approval;
   c. The need for Well Construction Permits;
   d. The need for Water Appropriation Permits;

3) Review and comment on the permit application, operation or reclamation plan with respect to:
   a. Other laws, rules and regulations administered by the IDWR;
   b. Identification and use of BMPS required for stream channel alteration permits;
   c. Need for additional information from the operator required to evaluate the project.

4) Provide the lead agency and/or IDL with copies of all applications filed by the operator or his agents with the IDWR.

VII. INSPECTIONS (Mine Reviews)

This section applies to all mineral operations where inspections may be required for compliance with state and federal law. This section is not intended to limit or increase an agency's authority. All agencies that are party to this MOU recognize the need for voluntary cooperation. As referenced on page 2, paragraph 6 herein, there are two MOUs which determine the lead agency for each mining site. The lead agency designates one person to oversee operations at the site. All other agencies should coordinate with this lead agency coordinator. The lead agency is responsible for ensuring compliance with the plan of operation (USFS or BLM), placer permit or reclamation plan, whichever are applicable. It the lead agency/minerals administrator decides there is a compliance problem with a coordinating agency's permit, they should contact the appropriate coordinating agency. If a coordinating agency decides there is a compliance problem with the plan of operation, placer permit or reclamation plan, they should contact the lead agency's field representative, not the operator. Regional inter-agency coordination groups may develop site-specific MOUs to coordinate mine permitting and administration.

The lead agency will:

1) Conduct field inspections of mining operations on a regular basis, as determined by the lead agency, during which the operation is inspected for compliance with the plan of operation, dredge and placer mining permit or surface mine reclamation plan.

2) Ensure that the operator implements BMPS on the mine site in accordance with the approved plan of operation, placer mining permit or reclamation plan.

3) Inform the coordinating agencies of the lead agency's inspection schedule and provide an opportunity for participation by the coordinating agencies.
4) Forward copies of the field reports to the coordinating agencies, on request.

The Division of Environmental Quality will:
1) Participate in field inspections, as necessary.

2) Ensure that the mining operation is using correct water quality monitoring techniques and water quality assurance in implementing the approved monitoring plan. DEQ will conduct water quality monitoring and surveillance to assure compliance with Water Quality Standards.

3) Inform the lead agency in advance of water quality monitoring schedules, cyanidation facility inspections and field inspections being conducted for assuring water quality compliance.

4) Notify the lead agency, when a field inspection by DEQ is necessary due to a water quality complaint.

5) Notify the lead agency of existing or potential water quality violations on a mine site.

6) Document inspections of a water quality complaint with a field report and photos, and forward a copy of the report to the lead agency.

The U.S. Environmental Protection Agency will conduct inspections as necessary to fulfill its statutory obligations. The EPA will notify the lead agency of any planned inspections and of the inspection results.

The Department of Water *Resources* will inform the lead agency and/or IDL of monitoring schedules, compliance inspections and any enforcement actions taken or being considered against the operator and/or his agents.

The Department of Fish and Game will inform the lead agency of monitoring schedules planned by the department.

VIII. INTERAGENCY COORDINATION MEETINGS INSPECTIONS
This section applies to operations where a reclamation plan or a placer mining permit is required by IDL.

The lead agency will:

1) Conduct coordination meetings on mining operations when the lead agency determines, based on potential water quality impacts, size, or permitting logistics, that periodic interagency coordination is necessary.

2) Provide advance notice to the coordinating agencies of the time and place of the meeting.

3) Provide a written agenda for the meeting.

4) Will notify the operator, in advance, of the agencies who are attending the meeting.

5) Discuss BMP implementation and effectiveness.

6) Provide meeting notes from the coordinating agencies and operator, within 30 days.

The coordinating agencies will:

1) Attend coordination meetings or provide adequate prior notice of absence.

2) Provide information on issues within the agency's areas of authority and expertise.

3) Provide recommendations, as appropriate, on BMP design and implementation as they affect resources within that agency's jurisdiction and expertise; and

4) The DEQ will provide information on water quality conditions and documented water quality violations and impairment of designated uses.

IX. FEEDBACK LOOP PROCESS/ANTIDEGRADATION

This section applies to all mineral operations, regardless of size or permit requirements.

The lead agency or the Department of Lands will:

1. Require and ensure that the water management plan, as part of the reclamation plan, will be implemented and maintained for the purpose of providing full protection and maintenance of designated uses and providing for protection of the environment, public health, safety and welfare as identified in the state water quality standards.

2. Request that operators submit two copies of ongoing monitoring data, as required for the life of the project, and ensure that the DEQ receives one (1) copy of all monitoring data.

3. Notify DEQ and IDF&G as soon as possible of suspected impairment of designated or existing beneficial uses, and submit any available documentation of the problem, such as photos or field reports.

4. Notify DEQ and coordinating agencies as soon as possible after a plan or permit violation is identified.

5. Follow up on suspected plan of operation, reclamation plan or placer permit violations reported by a coordinating agency by inspecting the mine site as soon as possible and documenting any plan or permit violations.

6. Notify the operator when a water quality problem has been identified. If BMPS are being implemented properly but water quality criteria are not being met, or the designated and existing uses are being impaired, the lead agency, and IDL when requested by the lead agency, will conduct a timely evaluation and require BMP installations or modifications. No agency may design BMPS for an operator. However, the lead agency must ensure that an operator installs or modifies the BMPS when water quality is being degraded or designated uses are not being protected.

7. Review and confirm, based on a prearranged schedule that recommended BMP installations or modifications, needed to correct a water quality problem, have been implemented at the mine site. If they have not been implemented, the lead agency may initiate enforcement action pursuant to its authorities. The lead agency will notify DEQ and IDL of the intent to initiate an enforcement action and of any threat to water quality the plan or permit violation may impose. DEQ may then proceed as directed under Section IX, DEQ paragraph 5. If BMPS have been modified, DEQ shall proceed as outlined in Section IX, DEQ paragraph 1.

The Division of Environmental Quality will:

1. Determine, by water quality monitoring and surveillance, whether the BMPS are meeting water quality criteria or fully protecting designated uses and providing for protection of the environment, and the health, safety and welfare of the people of this state.

2. Follow up on suspected water quality violations by inspecting the site as soon as possible and documenting or sampling as necessary to verify water quality violations and identify source areas.

3. Notify the lead agency and IDL as soon as possible of suspected plan or permit violations of the plan of operation, reclamation plan or placer mining permit. When appropriate, provide written and photo documentation.

4. If water quality criteria are not being met, or designated uses are being impaired, provide the lead agency with a written report within ten days after a suspected water quality violation is discovered. The report should document the water quality violations, and contain recommendations for correcting the problems. Photographs should be used to document problems whenever possible. DEQ will request in writing that the lead agency evaluate the best management practices and modify those on-site practices to protect water quality and designated uses. The lead agency will then proceed as outlined in Section IX, lead agency or IDL paragraph 6.

5. If water quality criteria are not being met, or designated uses are being impaired, or water quality impairment results from a cyanide facility, and the operator refuses to modify or upgrade existing BMPS, as required by the IDL, the DEQ may initiate enforcement action by preparing a compliance schedule or instituting administrative or civil proceedings. DEQ shall notify the lead agency of the intent to initiate enforcement action. This shall not preclude the lead agency from taking its own enforcement action.
6. The director may seek injunctive relief to prevent or stop imminent and substantial danger to the public health or the environment as provided in Section 39-108, Idaho Code.

The Department of Fish and Game will.,

1. Determine by monitoring and surveillance, whether the BMPS are effective in protecting fish and wildlife resources.

2. If fish and wildlife are being adversely impacted by mining, then IDF&G will provide the IDL with appropriate documentation and request that BMPS be modified.

X. *LIMITATIONS*

Nothing in this Appendix shall be construed as increasing, limiting or modifying,. in any way, the authority or statutory or regulatory responsibilities of the State or the Federal Government, or bind either to perform beyond their respective authorities, or require any agency to assume or expend any sum in excess of available appropriations. Each and every provision of this Appendix is subject to the laws and regulations of the State of Idaho, the laws of the United States, and the regulations of the Secretary of Agriculture and Secretary of the Interior.

Xi. EFFECTIVE DATE

This Appendix shall become effective upon the signature of all agencies and will remain in force unless formally amended and approved by all agencies.

This Appendix may be formally terminated by any agency after sixty (60) days written notice to the other signators of his intention to do so.

_____ _____

Stanley F. Hamilton, Director Date
Department of Lands

_____ _____

Jerry L. Harris, Director Date
Department of Health & Welfare

_____ _____

R. Keith Higginson, Director Date
Department of Water Resources

_____ _____

Jerry M. Conley, Director Date
Department of Fish & Game

_____ _____

M. Lynn McKee, Director Date
Idaho Operations Office, EPA Region 10

_____ _____

David F. Jolly, Regional Forester Date
USDA Forest Service, Region 1

_____ _____

Gray F. Reynolds, Regional Forester, Date
USDA Forest Service, Region 4

_____ _____

Delmar D. Vail, State Director Date
Bureau of Land Management

APPENDIX A - 4

APPENDIX TO
THE MEMORANDUM OF UNDERSTANDING IMPLEMENTING
THE NONPOINT SOURCE WATER QUALITY PROGRAM
IN THE STATE OF IDAHO
SPECIFYING IMPLEMENTATION OF THE
AGRICULTURAL POLLUTION ABATEMENT PLAN, 1991

I. AGENCIES TO THE AGREEMENT

Idaho Soil Conservation Commission (SCC); Idaho Department of Health and Welfare-Division of Environmental Quality (DEQ); U.S.D.A.-Soil Conservation Service (SCS); University of Idaho-Cooperative Extension System (CES); U.S. Environmental Protection Agency (EPA); U.S.D.A. - Agricultural Stabilization and Conservation Service (ASCS); U.S.D.I.-Bureau of Land Management (BLM); U.S.D.A.-Forest Service, Intermountain, Northern and Pacific Northwest Regions (Forest Service); Idaho Department of Lands (IDL); Idaho Department of Agriculture (IDA); Idaho Department of Water Resources (IDWR).

II. PURPOSE

This appendix to the Memorandum of Understanding Implementing the Nonpoint Source Water Quality Program in the State of Idaho is to identify roles and responsibilities for implementing the Idaho Agricultural Pollution Abatement Plan, 1991 (Ag Plan) that coordinates nonpoint source water pollution control activities on all federal, state and private agricultural lands in the state.

III. DEFINITIONS

Best Management Practice (BMP): (for this appendix) A ***component practice*** or ***combination of component practices*** determined to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals. The Catalog of Component Practices is part of the Ag Plan and the listing of practices approved for use in the development of agricultural BMPs.

Coordinated Resource Management Planning (CRMP): A process by which natural resource owners, managers, and users, working together as a team, develop and implement plans for the management of all major resources and ownerships within a specific area and/or resolve specific conflicts.

Federal Land Management Agencies: (for this appendix) The U.S.D.A.-Forest Service, and the U.S.D.I.-Bureau of Land Management.

Soil Conservation Districts (SCDs): The Soil Conservation District Law, Idaho Code, Title 22, Chapter 27 establishes the organization and purposes of Soil Conservation Districts (SCDs). The 51 SCDs are governmental subdivisions of the state and include private, state and federal lands, with the exception of some incorporated cities and portions of the Idaho National Engineering Laboratory.

IV. AUTHORITIES

State agencies may enter into interagency cooperative agreements under authority of Title 67, Chapter 23, Idaho Code.

The legal authorities of the agencies to the agreement are listed in the Memorandum of Understanding Implementing the Nonpoint Source Water Quality Program in the State of Idaho.

V. NOW THE PARTIES MUTUALLY AGREE:

1. To implement the Idaho Agricultural Pollution Abatement Plan, as revised in 1991 and thereby is consistent with and meets the goals of the Idaho Nonpoint Source Management Program and the requirements of Section 319 of the federal Clean Water Act.

2. To establish a Best Management Practice (BMP) Technical Committee and to participate in the evaluation, modification and development of component practices through that committee.

3. To implement Coordinated Resource Management Planning (CRMP) as an instrument to accomplish agricultural water quality planning on a watershed basis when ownership is mixed public and private.

4. To implement and integrate the 1991 Idaho Ground Water Quality Plan agricultural chemical and nutrient management policy along with the supporting monitoring program.

5. To cooperate in the development of the Pesticides State Management Plan (SMP) as an integral part of agricultural chemical management.

6. To annually confirm or update the beneficial use status and pollutant magnitude of agricultural nonpoint source water quality priorities listed in **the Ag Plan.**

7. To provide information and education to agricultural land users and to the general public about agricultural nonpoint source pollution problems and the solutions and activities that address those problems.

8. To review proposed revisions of the Ag Plan that are either substantial or involve changes in policy, and which subsequently shall be effective following written approval by SCC and DEQ.

VI. IDAHO SOIL CONSERVATION COMMISSION AGREES:

1. To coordinate the implementation of the Ag Plan on all state and private agricultural lands in the state.

2. To organize, convene and chair the BMP Technical Committee.

3. To ensure that BMPs and component practices are evaluated by the BMP Technical Committee for effectiveness in providing water quality benefits for both surface and ground water.

4. To participate in BMP implementation and effectiveness evaluations through State Agricultural Water Quality Program (SAWQP).

5. To be lead agency for Coordinated Resource Management Planning within SAWQP.

6. To jointly (with DEQ) evaluate research needs identified by Soil Conservation Districts (SCDs) or technical agencies and to work with research agencies and groups to initiate needed research.

7. To provide leadership to SCDs in developing information and education programs that target local audiences.

8. To review jointly with DEQ) agricultural nonpoint source water quality priority lists (established in the SCDs' Five Year Programs) for completeness and consistency with Stream Segments of Concern, Outstanding Resource Waters and 319 Assessment information.

9. To update annually, with the concurrence of DEQ, the Catalog of Component Practices (Section VIII) and the List of Agricultural Nonpoint Source Water Quality Priorities (Section VI) of the Ag Plan.

10. To conduct periodic (two year interval) evaluations of the Ag Plan for compatibility with new legislation, policies, programs and plans and for responsiveness to local needs. Revisions that are either substantial or involve changes in policy will be submitted to all parties (including SCDs) for review and finally to DEQ for written approval.

VII. IDAHO DEPARTMENT OF HEALTH AND WELFARE - DIVISION OF ENVIRONMENTAL QUALITY AGREES:

1. To be the lead agency for water quality monitoring activities.

2. To participate in BMP implementation and effectiveness evaluations through the State Agricultural Water Quality Program (SAWQP).

3. To jointly (with SCC) evaluate research needs identified by Soil Conservation Districts (SCDs) or technical agencies and to work with research agencies and groups to initiate needed research.

4. To coordinate the distribution of agricultural nonpoint source water quality priority lists (established in the SCDs' Five Year Programs) to appropriate agencies for confirmation or updating of the beneficial use status and pollutant magnitude as listed in the 319 Assessment.

5. To review annual updates of the Catalog of Component Practices (Section VIII) and the List of Agricultural Nonpoint Source Water Quality Priorities (Section VI) of the Ag Plan.

VIII. FEDERAL LAND MANAGEMENT AGENCIES AGREE:

1. To coordinate the implementation of the Ag Plan on all federal agricultural lands in the state.

2. To ensure the technical adequacy of the design and installation of each BMP and component practice applied on lands they administer.

3. To coordinate with SCDs in the establishment of nonpoint source water quality priorities during development or revision of land use plans.

IX. UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE AGREES:

1. To ensure the technical adequacy of the design and installation of each BMP and component practice applied on privately owned lands.

2. To participate in BMP implementation and effectiveness evaluations through the State Agricultural Water Quality Program (SAWQP).

X. IDAHO DEPARTMENT OF AGRICULTURE AGREES:

1. To be the lead agency in the development of the Pesticides State Management Plan (SMP) in consistency with the 1991 Idaho Ground Water Quality Plan agricultural chemical and nutrient management policy.

2. To participate in BMP and component practice effectiveness evaluations and water quality monitoring activities relating to the use of agricultural chemicals and nutrients.

XI. IT IS FURTHER AGREED:

1. That nothing in this appendix shall be construed as limiting or affecting in any way the legal authority of the participating agencies in connection with the proper administration and protection of affected lands in accordance with federal and state laws and regulations.

2. That nothing in this appendix shall be construed as obligating the participating agencies to expend funds in any contract or assume any other obligation for future payment of funds or services in excess of those available or authorized for expenditure.

3. That this appendix shall become effective upon an agency as soon as it is signed by that agency. This appendix shall continue in force unless terminated by mutual written consent, except that any agency shall have the right to terminate that agency's participation as a party to the agreement upon sixty days notice in writing to the other parties of their intention to terminate upon a date indicated.

4. That this appendix shall be administrated by the SCC.

5. That this appendix shall be reviewed periodically (two-year interval) so that revisions and updates necessary to meet the purpose of the appendix are made. Amendment shall be effective following written approval by all parties to the appendix.

6. That the program and activities conducted under this agreement will be in compliance with the nondiscrimination provisions contained in the Titles VI and VII of the Civil Rights Act of 1964 as amended; the Civil Rights Restoration Act of 1987 (Public Law 100-259); and other nondiscrimination statutes: namely, Section 504 of the Rehabilitation Act of 1973, Title lx of the Education Amendments of 1972, and the Age Discrimination Act of 1975.

7. That each provision of this agreement is subject to the laws and regulations of the State of Idaho, and the laws and regulations of the United States.

WITNESS THEREOF, the parties hereto have caused this cooperative appendix to be executed.

IDAHO DEPARTMENT OF HEALTH & WELFARE -
DIVISION OF ENVIRONMENTAL QUALITY

_____

Joe Nagel, Administrator

U.S. ENVIRONMENTAL PROTECTION AGENCY

_____

M. Lynn McKee, Asst. Regional Admin.

IDAHO SOIL CONSERVATION COMMISSION

_____

Paul Calverley, State Conservationist

U.S. D. A. –SOIL CONSERVATION SERVICE

_____

Wayne R. Faude, Administrator

IDAHO DEPARTMENT OF LANDS

_____

Stanley Hamilton, Director

U.S.D.I. - BUREAU OF LAND MANAGEMENT

_____

Delmar D. Vail, State Director

IDAHO DEPARTMENT OF AGRICULTURE

_____

Dr. W. G. Nelson, Director

U.S.D.A. - FOREST SERVICE~ REGION 1

_____

David F. Jolly, Regional Forester

IDAHO DEPARTMENT OF WATER RESOURCES

_____

R. Keith Higginson, Director

USDA - FOREST SERVICE, REGION A

_____

Gray F. Reynolds, Regional Forester

UNIVERSITY OF IDAHO -
COOPERATIVE EXTENSION SYSTEM

_____

Dr. LeRoy D. Luft, Director

U.S.D.A. AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

_____

Bruce Bradshaw, Act. State Exec. Director

U.S.D.A. FOREST SERVICE. REGION 6

_____

John E. Lowe, Regional Forester

APPENDIX A - 5 DRAFT

COORDINATED RESOURCE MANAGEMENT
MEMORANDUM OF UNDERSTANDING
Between
STATE OF IDAHO

Soil Conservation Commission (SCC)
Department of Fish and Game (IDFG)
Department of Agriculture (IDA)
Department of Lands (IDL)
University of Idaho, Cooperative Extension System (CES)
Department of Health and Welfare, Division of Environmental Quality (DEQ)

and

UNITED STATES DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service (NRCS)
Forest Service (FS)

and

UNITED STATES DEPARTMENT OF INTERIOR
Bureau of Land Management (BLM)

and

Idaho Cattle Association (ICA)
Idaho Wool Growers Association (IWGA)
Idaho Association of Soil Conservation Districts (IASCD)

PURPOSE

The agencies and associations signatory to this Memorandum Of Understanding will cooperate with private landowners and natural resource users to foster Coordinated Resource Management (CRM).

THE PROCESS/ACTION (CRM) - CRM is a process that considers the resources and resource users within a geographical area. The process encourages active involvement and input from all interested parties, with management decisions made by a consensus of the group.

THE PRODUCT/PLAN - A CRMP is a management plan developed to document a resource management program that attempts to integrate and make provisions for all appropriate resource values and uses within a geographical area. The plan is developed by a group of individuals representing different interests concerned with the area. The plan is built upon the formulation of goals for the area through a consensus decision making process. These goals form the basis for all management alternatives considered for the area.

POLICY

The BLM, FS, IDFG, IDA, IDL, CES, NRCS, SCC, DEQ, ICA, IWGA, IASCD and private landowners and natural resource users, will cooperate to foster CRM. Techniques and procedures may be implemented through CRM where statutory authority, resource needs, public support, and financial capability exists.

In implementing the provisions of this memorandum, each agency's participation will vary depending upon the landownership and the land use and administrative responsibility within the area. Other agencies, associations, organizations, and individuals will be asked to participate as appropriate.

CRM is an approach for reaching decisions and resolving resource conflicts. It can complement any planning or management situation where mixed land ownership or multiple resource management use is involved. Some of the elements common to the CRM approach are:

-- Cooperation and equitable voluntary participation of all affected interests, using a "team" approach.
-- Open communication among all participants.
-- Availability of technical expertise.
-- Strong and effective local leadership.
-- Agreement by consensus of the team.
-- Commitment to monitoring, review and revision of plans, agreements and projects to ensure objectives are met.

OBJECTIVES

The objectives of CRM are to:

A. Improve management of land resources while promoting cooperation among the agencies, associations, landowners, interest groups, and individuals responsible for or interested in these resources.
B. Develop and implement resource management programs and activities to achieve compatible resource uses based on sound ecological and economic relationships.
C. Achieve optimum sustained production of food, fiber, and other goods, services, and benefits from such lands, consistent with State and Federal policies.
D. Increase efficiency and reduce resource management costs of public agencies, private landowners, communities, and the general public.

E. Improve communications among those interested in and affected by land and resource management decisions.

RESPONSIBILITIES

The responsibilities of the participants in CRM are:

A. The BLM and FS plan and conduct multiple use resource management and conservation programs on lands under their jurisdiction in accordance with their pertinent laws and authorities.

B. The NRCS provides technical assistance to private operators for planning and applying conservation programs on private and other non-Federal lands.

C. The SCC provides assistance to the Soil Conservation Districts (SCD) to develop long-range programs, and to secure and coordinate assistance from appropriate agencies and organizations.

D. The SCD provides a means for determining local attitudes and objectives, and serve as a catalyst to develop and maintain local interest in and support for conservation and development of lands in Soil and Water Conservation Districts.

E. The CES provides and conducts local educational activities which compliment research and assistance programs.

F. The IDFG has responsibility for management of fish and wildlife resources within Idaho.

G. The IDA will assist in the development and implementation of Best Management Practices and Resource Management Plans.

H. The IDL plans and conducts multiple use resource management and conservation programs on lands under their jurisdiction and private operators for practices on private and other non-Federal lands.

I. The DEQ is responsible for the administration of State Water Quality Standards.

J. The ICA and IWGA encourage members to take full responsibility for rangeland stewardship and promote wise grazing use of the resource.

The signatory agencies and associations will cooperate with all owners, managers, and users of land and resources within each specific area, including Federal, State, counties, and private landowners. Other persons, agencies and organizations with interest in the CRM area will be involved as appropriate.

MODIFICATION

This MOU shall remain in effect until modification by the parties in writing and is renegotiable at the option of any one of the parties.

SIGNATORIES

Chairman, Idaho Soil Conservation Commission Date

Director, Idaho Department of Lands Date

Director, Idaho State Department of Agriculture Date

Director, Idaho Department of Fish and Game Date

State Director, Cooperative Extension System Date

Regional Forester, USDA Forest Service, R-1 Date

Regional Forester, USDA Forest Service, R-4 Date

State Conservationist, Natural Resources Conservation Service Date

Administrator, Idaho Department of Health and Welfare Date
Division of Environmental Quality

State Director Bureau of Land Management Date

President, Idaho Cattle Association Date

President, Idaho Wool Growers Association Date

President, Idaho Association of Soil Date
Conservation Districts

APPENDIX A - 6

THE IDAHO DAIRY POLLUTION PREVENTION INITIATIVE MEMORANDUM OF UNDERSTANDING

OBJECTIVE

The objectives of this Memorandum of Understanding (MOU) are to define roles of the agencies in regulating the dairy industry in Idaho and to recognize the Idaho State Department of Agriculture's (ISDA's) lead role in ensuring dairy waste systems and practices in accordance with the provisions outlined in the Idaho Waste Management Guidelines for Confined Feeding Operations (CFO Guidelines), a 1993 publication by the Idaho Department of Health and Welfare's Division of Environmental Quality (IDEQ). This MOU sets forth a working arrangement between the agencies and the Idaho dairymen to reduce duplicative inspection efforts, increase the frequency of inspections of dairy waste management systems and to provide a sound inspection program, in order to prevent pollution and protect Idaho's surface and groundwater from dairy waste contamination.

BACKGROUND

This MOU has been developed because of the recognition by the Idaho Dairymen's Association (IDA), ISDA, the U.S. Environmental Protection Agency (EPA), IDEQ, and other interested parties for the need to formalize an ongoing effort to conserve resources, to more effectively and efficiently use personnel, to reduce duplicative inspection services, and to ensure Idaho dairymen comply with the Clean Water Act (CWA) and the Idaho Water Quality Standards and Wastewater Treatment Standards (IWQS). This approach will capitalize on the already frequent presence of ISDA dairy inspectors on dairy farms and is intended to enable IDEQ and the EPA to redirect and focus resources.

AGREEMENT

Whereas the ISDA routinely inspects dairies for milk sanitation issues, and;

Whereas the ISDA, the IDEQ, and the EPA conduct routine environmental inspections on these same dairy farms, and;

Whereas it is in the best interests of the people residing in the State of Idaho to support more efficient governmental programs, and;

Whereas the protection of water quality will be enhanced through a more cooperative and efficient approach, the undersigned agencies hereby acknowledge the ISDA as the lead agency for dairy waste

management inspections to ensure compliance with the CWA and the IWQS, and agree to the following:

GENERAL POLICIES

1) Inspections of dairies should generally include a visual inspection of the waste containment and runoff control facilities.

2) Inspections of dairies will be conducted so that reliable information concerning operating conditions applicable to water quality requirements will be documented.

3) Inspections may include the collection of discharge samples and photographs. Any sampling of discharges and subsequent analyses will be conducted according to procedures subsequently approved by ISDA, IDEQ, and EPA with consultation with IDA.

4) Meetings between the ISDA, the IDEQ, the EPA, and the IDA will be the primary method for discussion of program progress. The ISDA, IDEQ, and EPA may also identify those instances where enforcement action may be appropriate. An annual mid-year review meeting will be held each April between the ISDA, the IDEQ, the EPA, and the IDA to address issues regarding waste management and the environment relative to the dairy industry.

5) ISDA, IDEQ and EPA files will be mutually available under applicable law to the ISDA, IDEQ and EPA for inspection and copying. They shall respect the confidentiality of files or materials designated CONFIDENTIAL in accordance with federal and state regulations.

RESPONSIBILITIES

The ISDA will:

1) Promulgate and enforce rules for the purpose of carrying out the objective of this MOU. Non-compliance with these rules or discharge violations may result in revocation of authority to sell milk for human consumption.

2) Initiate appropriate dairy waste inspection protocols to prevent dairy waste releases.

3) Conduct periodic inspections of all dairies to include evaluation of waste collection, treatment, handling, disposal, and management procedures for compliance with the CWA and the IWQS. Respond to all complaints and information regarding dairy waste management.

4) Notify IDEQ immediately of all releases that cannot be stopped within 24 hours. All releases that present a substantial present or potential hazard to human health and the environment shall be immediately reported to the IDEQ.

5) Provide a written summary report of all observed releases from dairies that reach waters of the United States on a quarterly basis to the EPA and the IDEQ. The report will include, at a minimum, the number of releases by watershed, the number of inspections conducted, and a summary of the resolution actions taken.

6) Prepare and submit an annual report to the IDEQ and the EPA prior to the annual mid-year review. The report will include activities for the past year as well as planned and ongoing activities for the current year.

7) Not revoke a dairy facility's authorization to sell milk if there is a discharge from that facility if that facility has a National Pollution Discharge Elimination System (NPDES) permit and the discharge is not in violation of the NPDES permit.

8) Approve the design, construction, and location of dairy waste management systems for dairy farms, per the CFO Guidelines.

The IDEQ will:

1) Provide training, information, education, and technical assistance for waste handling and disposal to the ISDA, and/or to dairies upon request, to the extent of available resources.

2) Discontinue routine compliance inspections on dairies, consistent with the terms of this MOU.

3) Conduct inspections of dairies only when requested by the ISDA. However, the IDEQ retains the right to inspect in any situation it considers to present a substantial present or potential hazard to human health and the environment after due notification to ISDA.

4) Initiate enforcement actions under the authority of the Idaho Environmental Protection and Health Act, only upon request or referral by the ISDA or as a direct result of the investigation actions outlined in paragraph 3 above.

5) Evaluate ISDA inspection records annually, or at a frequency determined to be necessary by the parties to this agreement during the annual mid-year review. The IDEQ will prepare and submit a report of this review to the ISDA.

The EPA:

1) Will provide NPDES permit coverage for those dairy operations wishing protection afforded through the authority of the CWA.

2) Will discontinue routine compliance inspections on dairies during the term of this agreement.

3) Intends to conduct inspections of dairies only when requested by the ISDA. However, the EPA retains the right to inspect in any situation it considers to present a substantial present or potential hazard to human health and the environment after due notification of ISDA.

4) May initiate enforcement action under the CWA upon request or referral by the ISDA or the IDEQ, or as a direct result of investigations conducted as outlined in the preceding paragraph.

5) Will provide annual training, information, education, and technical assistance for waste handling and disposal to the ISDA and/or dairies upon request, to the extent of available resources.

6) Will review the ISDA inspection program twelve months after its initiation. A small number of dairies (not to exceed ten) across the state will be visited as part of the oversight review to determine program success. During the oversight review, these dairies will be visited by an ISDA inspector or field person and an EPA staff person for the following purposes: (1) to ensure that inspections are occurring as provided by this MOU and ISDA rules; and (2) to ensure inspections are conducted in a consistent manner across the state. Information collected by EPA during oversight visits will be for the purpose of providing feedback to ISDA. As ISDA will be the lead agency in Idaho for dairy inspections, EPA does not intend to use information resulting from the oversight visits to initiate independent enforcement actions except as provided in paragraph #3 above. EPA will submit a report of the review to the parties. This on-site

inspection process will be reviewed annually to determine if it is needed for the following year and be renewed, modified or canceled.

The IDA will:

1) Continue the concept of the "Dairy of Merit" program which acknowledges dairies that operate in an environmentally responsible manner.

2) Support continuing education of dairies concerning necessary waste management practices to protect surface and ground water from contamination.

3) Participate in the annual review with the signatory parties and work cooperatively with the signatory parties to achieve the objectives of this MOU.

GENERAL PROVISIONS

1) Nothing in this agreement shall be construed as surrendering existing statutory or regulatory authority of any party. However, the IDEQ and the EPA recognize the lead role of the ISDA in inspecting dairies as set forth in this MOU and will exercise their authorities accordingly.

2) Nothing in this agreement shall be construed to release a dairy from complying with applicable local, state, and federal environmental statutes, regulations, permits, or consent orders.

3) The term of this agreement shall be 5 years, unless otherwise revoked by any one of the signatory parties following 30 day notice to all parties. This agreement may be amended or extended through mutual agreement of the parties. This agreement, when accepted by each agency, will be effective from date of the last signature.

SIGNATORY PARTIES:

John Hatch, Director
Idaho Department of Agriculture
Date:

Wallace N. Cory, P.E.
Administrator
Division of Environmental Quality
Idaho Department of Health and Welfare
Date:

Chuck Clarke, Administrator
Region 10, U.S. EPA
Date:

Pete Lizaso
Chairman
Idaho Dairymen's Association, Inc.
Date:

Appendix A-7

September 18, 1998

Carol M. Browner
Administrator
Environmental Protection Agency
401 M. St. S.W.
Washington, D.C. 20460

Daniel Glickman
Secretary of Agriculture
United States Department of Agriculture
1400 Independence Avenue S.W., Ste. 200A
Washington, D.C. 20250

Dear Ms. Browner and Mr. Glickman:

On June 9, 1998, the Idaho Division of Environmental Quality and the Natural Resources Conservation Service convened an Executive Briefing session on the Clean Water Action Plan (CWAP) for the heads of the federal and state natural resources agencies, federal and state elected officials, directors of city and county organizations, conservation leaders and presidents and executive directors of state level agricultural, natural resources, water user associations and organizations. The tribes were invited to participate. The purpose and elements of the CWAP were discussed in detail.

The participants came to the consensus that Idaho is already using a form of the Unified Watershed Assessment. Idaho is under a court-approved schedule for development of TMDLs. The TMDLs are being completed on a watershed basis. The eight-year schedule establishes the state priorities for the watersheds within the state. The schedule was developed after consultation with state and federal land management agencies and will be completed in concert with these agencies.

Attached for your information is the justification for the TMDL schedule prepared by Region 10 of the Environmental Protection Agency. In addition, Idaho is preparing the 305(b) report as required by the Clean Water Act which will provide additional information on the status of our watersheds.

We will continue to focus our limited financial and staff resources on these planned actions. If you have any questions, please feel free to contact Larry Koenig, Assistant Administrator for Water Quality and Remediation at (208) 373-0407.

Sincerely,

Wallace N. Cory	Lynn McKee	Luana E. Kiger
Administrator	Assistant Regional Administrator	State Conservationist
Idaho Division of	Environmental Protection Agency	Natural Resources
Environmental Quality		Conservation Service

Draft 1998 Unified Watershed Assessment and Restoration Priorities for Idaho

Introduction

In February 1998, the Environmental Protection Agency and the U. S. Department of Agriculture issued a "Clean Water Action Plan" (CWAP) that provides a strategy for restoring and protecting the Nation's water resources. One of the initial elements of the CWAP asks States and Tribal governments to work with agencies, governments, and the public to assess the conditions of the state's water resources and to prioritize watersheds for restoration. The State Conservationist for the Natural Resource Conservation Service (NRCS) in Idaho and the Administrator for the Idaho Division of Environmental Quality (DEQ) convened a process to develop a Unified Watershed Assessment (UWA) and to prioritize watersheds for restoration in Idaho. Existing assessments and prioritization efforts, developed with extensive public input, will be used in this effort. These priorities will be reviewed annually and updated as needed to reflect changing conditions and more detailed watershed information. The UWA will be used to help target increased funding associated with the CWAP and identify where collaborative restoration opportunities exist.

Unified Watershed Assessment Categorization

The "June 9, 1998 Framework for Unified Watershed Assessments, Restoration Priorities, and Restoration Action Strategies" issued by the U. S. Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) requested states to categorize watersheds into four categories:

1. Watersheds not meeting, or in imminent threat of not meeting, clean water or natural resource goals,
2. Watersheds meeting goals but needing action to sustain water quality,
3. Watersheds with pristine/sensitive aquatic system conditions on federal/state/tribal lands, and
4. Watersheds where more information is needed to assess conditions.

Categorization Approach

The June 1998 USDA/EPA UWA Framework called for categorizing "watersheds" at the sub-basin scale. Most of Idaho's sub-basins have waters that do not meet water quality standards (WQS) (Category 1) therefore, all sub-basins containing waters listed or proposed for listing in on the 303(d) list are categorized as UWA Category 1 sub-basins. The use of sub-basins that contain 303(d) listed waters is a practical categorization approach for the following reasons:

1. 303(d) listings are based on water quality data and indicate that water quality goals are not being met;

2. The 303(d) list is developed with public and agency input;
3. The use of the 303(d) list is consistent with the court approved schedule for completion of TMDLs ;
4. This approach received consensus support during June 9 Executive Briefing session for the heads of federal and state natural resource agencies, federal and state elected officials, directors of city and county organizations, conservation leaders, and presidents and executive directors of state level agricultural, natural resources, water user associations and organizations.

Seventy-eight of the eight-four sub-basins fall into Category 1 because of the 303(d) listing process. Three fall into Category 2 because the available information indicates that they meet water quality goals. Three sub-basin were listed in Category 3 they are located on federal lands, some within designated wilderness areas. The attached Table 1 and Figure 1 depict the sub-basin categorization.

Tribal II

Many sub-basins in Idaho's Unified Watershed Assessment include lands within Tribal Reservations. Over the next year Idaho intends to coordinate funding and prioritize restoration efforts with the Tribes on waters which lie within or are adjacent to Indian Reservations, or otherwise have special Tribal interest. The Nez Perce Tribe has developed a Unified Watershed Assessment which is consistent with the Idaho Assessment in that sub-basins included in both the Tribe and State Assessments are high priority. We look forward to further coordinating with the Tribe in developing restoration plans in these watersheds.

Watershed Plans and Assessments

Total Maximum Daily Loads (TMDLs) will be developed in accordance with the schedule contained in Table 2 (Attached). All of the Category 1 sub-basin will be assessed within the next 7 years or by the year 2005. In addition, implementation plans will be developed for each of these TMDLs by the appropriate agencies. For agricultural lands, the Soil Conservation Commission is developing these plans. For forestry, plan development is the responsibility of the Department of Lands.

In addition to the above assessments, efforts of the NRCS under the PL-566 land treatment watershed plans, Environmental Quality Incentive Program (EQIP) geographic priority plans, coordinated resource management plans and related efforts utilize a watershed approach to restoration. The ICBEMP effort by the Forest Service and BLM which call for watershed analysis and other types of landscape level analyses can help further define and direct restoration priorities. In addition, U.S. Fish and Wildlife Service and National Marine Fisheries Service biological opinions, recovery plans, and habitat conservation plans for federally listed fish and aquatic species can help target and identify appropriate watershed protection and restoration measures.

Public Participation

Because of the dynamic nature of the document, public participation activities are on-going. Refinement of priorities and projects will be developed annually.

TABLE 1: Idaho's Unified Watershed Assessment Categorization

HUC	Acres	Category
17060308	"736,535.00"	1
17060307	"827,624.00"	1
17060306	"1,498,987.00"	1
17060305	"752,248.00"	1
17060304	"138,676.00"	1
17060303	"752,000.00"	1
17060302	"655,610.00"	1
17060301	"627,477.00"	1
17060210	"349,310.00"	1
17060209	"756,167.00"	1
17060208	"839,149.00"	1
17060207	"1,094,295.00"	1
17060206	"878,256.00"	1
17060205	"963,157.00"	1
17060204	"804,555.00"	1
17060202	"531,110.00"	1
17060201	"1,570,934.00"	1
17060108	"339,493.00"	1
17060103	"119,668.00"	1
17060101	"221,210.00"	1
17050201	"424,171.00"	1
17050124	"1,077,345.00"	1
17050123	"594,740.00"	1
17050122	"784,505.00"	1
17050121	"217,670.00"	1
17050120	"523,690.00"	1
17050115	"79,847.00"	1
17050114	"883,626.00"	1
17050113	"835,486.00"	1
17050112	"395,554.00"	1
17050111	"485,728.00"	1
17050108	"386,805.00"	1
17050104	"1,013,027.00"	1
17050103	"1,283,245.00"	1
17050102	"1,601,640.00"	1
17050101	"1,362,523.00"	1
17040221	"730,454.00"	1
17040220	"438,140.00"	1
17040219	"950,500.00"	1
17040218	"1,272,112.00"	1
17040217	"616,385.00"	1
17040216	"464,819.00"	1
17040215	"584,914.00"	1
17040214	"649,040.00"	1
17040213	"548,147.00"	1
17040212	"1,627,276.00"	1
17040211	"466,149.00"	1
17040210	"791,875.00"	1
17040209	"2,291,829.00"	1
17040208	"852,532.00"	1
17040207	"697,288.00"	1
17040206	"1,809,182.00"	1
17040205	"415,707.00"	1
17040204	"514,509.00"	1
17040202	"694,555.00"	1
17040201	"809,376.00"	1
17040105	"263,049.00"	1
17040104	"553,093.00"	1
17010306	"156,606.00"	1
17010305	"235,606.00"	1
17010304	"1,179,436.00"	1
17010303	"407,245.00"	1
17010302	"192,059.00"	1
17010301	"573,588.00"	1
17010214	"751,879.00"	1
17010213	"139,058.00"	1
17010105	"113,591.00"	1
17010104	"528,419.00"	1
16020309	"456,084.00"	1
16010204	"321,028.00"	1
16010203	"27,412.00"	1
16010202	"607,378.00"	1
16010201	"629,546.00"	1
16010102	"140,995.00"	1
17060203	"1,163,276.00"	1
17060109	"12,395.00"	2
17040203	"429,478.00"	2
17080308	"15,776.00"	2
17050106	"57,217.00"	4
17010101	"45,533.00"	4

Summary

	Number	Acres
Category 1	78	"52,885,716.00"
Category 2	3	"457,649.00"
Category 3	0	0.00
Category 4	2	"102,750.00"

17050107	"188,534.00"	1	17010216	"12,742.00"	1
17050105	"155,618.00"	1	17010215	"488,621.00"	1

APPENDIX B.

IDAHO WATER QUALITY LAW §39-3601 et.seq.

39-3601. DECLARATION OF POLICY AND STATEMENT OF LEGISLATIVE INTENT. The legislature, recognizing that surface water is one of the state's most valuable natural resources, has approved the adoption of water quality standards and authorized the administrator of the division of environmental quality of the department of health and welfare in accordance with the provisions of this chapter, to implement these standards. In order to maintain and achieve existing and designated beneficial uses and to conform to the expressed intent of congress to control pollution of streams, lakes and other surface waters, the legislature declares that it is the purpose of this act to enhance and preserve the quality and value of the surface water resources of the state of Idaho, and to define the responsibilities of public agencies in the control, and monitoring of water pollution, and, through implementation of this act, enhance the state's economic well-being. In consequence of the benefits resulting to the public health, welfare and economy, it is hereby declared to be the policy of the state of Idaho to protect this natural resource by monitoring and controlling water pollution; to support and aid technical and planning research leading to the control of water pollution, and to provide financial and technical assistance to municipalities, soil conservation districts and other agencies in the control of water pollution. The director, in cooperation with such other agencies as may be appropriate, shall administer this act. It is the intent of the legislature that the state of Idaho fully meet the goals and requirements of the federal clean water act and that the rules promulgated under this act not impose requirements beyond those of the federal clean water act.

39-3602. DEFINITIONS. Whenever used or referred to in this act, unless a different meaning clearly appears from the context, the following terms shall have the following meanings
(1) "Applicable water quality standard" means those water quality standards identified in the rules of the department.
(2) "Best management practice" means practices, techniques or measures developed, or identified, by the designated agency and identified in the state water quality management plan which are determined to be a cost-effective and practicable means of preventing or reducing pollutants generated from nonpoint sources to a level compatible with water quality goals.
(3) "Board" means the board of health and welfare.
(4) "Department" means the department of health and welfare.
(5) "Designated agency" means the department of lands for timber harvest activities, for oil and gas exploration and development and for mining activities; the soil conservation commission for grazing activities and for agricultural activities; the transportation department for public road construction; the department of agriculture for aquaculture; and the department of health and welfare's division of environmental quality for all other activities.
(6) "Designated use or designated beneficial use" means those uses assigned to waters as identified in the rules of the department whether or not the uses are being attained. The department may adopt subcategories of a use.

(7) "Director" means the director of the department of health and welfare, or his or her designee.
(8) "Discharge" means any spilling, leaking, emitting, escaping, leaching, or disposing of a pollutant into the waters of the state. For the purposes of this chapter, discharge shall not include surface water runoff from nonpoint sources or natural soil disturbing events.
(9) "Existing use" means those surface water uses actually attained on or after November 28, 1975, whether or not they are designated uses. Existing uses may form the basis for subcategories of designated uses.
(10) "Full protection, full support, or full maintenance of designated beneficial uses of water" means compliance with those levels of water quality criteria listed in the appropriate rules of the department, or where there is no applicable numerical criteria, compliance with the reference streams or conditions approved by the director in consultation with the appropriate basin advisory group.
(11) "Lower water quality" means a measurable adverse change in a chemical, physical, or biological parameter of water relevant to a designated beneficial use, and which can be expressed numerically. Measurable adverse change is determined by a statistically significant difference between sample means using standard methods for analysis and statistical interpretation appropriate to the parameter. Statistical significance is defined as the ninety-five percent (95%) confidence limit when significance is not otherwise defined for the parameter in standard methods or practices.
(12) "National pollutant discharge elimination system (NPDES)" means the point source permitting program established pursuant to section 402 of the federal clean water act.
(13) "New nonpoint source activity" means a new nonpoint source activity or a substantially modified existing nonpoint source activity on or adversely affecting an outstanding resource water which includes, but is not limited to, new silvicultural activities, new mining activities and substantial modifications to an existing mining permit or approved plan, new recreational activities and substantial modifications to existing recreational activities, new residential or commercial development that includes soil disturbing activities, new grazing activities and substantial modifications to existing grazing activities, except that reissuance of existing grazing permits, or grazing activities and practices authorized under an existing permit, is not considered a new activity. It does not include naturally occurring events such as floods, landslides, and wildfire including prescribed natural fire.
(14) "Nonpoint source activities" includes grazing, crop production, silviculture, log storage or rafting, construction, mining, recreation, septic systems, runoff from storms and other weather related events and other activities not subject to regulation under the federal national pollutant discharge elimination system. Nonpoint source activities on waters designated as outstanding resource waters do not include issuance of water rights permits or licenses, allocation of water rights, operation of diversions, or impoundments.
(15) "Nonpoint source runoff" means water which may carry pollutants from nonpoint source activities into the waters of the state.
(16) "Outstanding resource water" means a high quality water, such as water of national and state parks and wildlife refuges and water of exceptional recreational or ecological significance, which has been so designated by the legislature. It constitutes an outstanding national or state resource that requires protection from point source and nonpoint source activities that may lower water quality.

(17) "Person" means any individual, association, partnership, firm, joint stock company, joint venture, trust, estate, political subdivision, public or private corporation, state or federal governmental department, agency or instrumentality, or any legal entity, which is recognized by law as the subject of rights and duties.
(18) "Point source" means any discernible, confined, and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture, discharges from dams and hydroelectric generating facilities or any source or activity considered a nonpoint source by definition.
(19) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, silt, cellar dirt; and industrial, municipal and agricultural waste, gases entrained in water; or other materials which, when discharged or released to water in excessive quantities cause or contribute to water pollution. Provided however, biological materials shall not include live or occasional dead fish that may accidentally escape into the waters of the state from aquaculture facilities.
(20) "Reference stream or condition" means one (1) of the following: (a) The minimum biological, physical and chemical conditions necessary to fully support the designated beneficial uses; or (b) A water body representing natural conditions with few impacts from human activities and which are representative of the highest level of support attainable in the basin; or (c) A water body representing minimum conditions necessary to fully support the designated beneficial uses. In highly mineralized areas or in the absence of such reference streams or water bodies, the director, in consultation with the basin advisory group and the technical advisers to it, may define appropriate hypothetical reference conditions or may use monitoring data specific to the site in question to determine conditions in which the beneficial uses are fully supported.
(21) "Short-term or temporary activity" means an activity which is limited in scope and is expected to have only minimal impact on water quality as determined by the director. Short-term or temporary activities include, but are not limited to, maintenance of existing structures, limited road and trail reconstruction, soil stabilization measures, and habitat enhancement structures.
(22) "Silviculture" means those activities associated with the regeneration, growing and harvesting of trees and timber including, but not limited to, disposal of logging slash, preparing sites for new stands of trees to be either planted or allowed to regenerate through natural means, road construction and road maintenance, drainage of surface water which inhibits tree growth or logging operations, fertilization, application of herbicides or pesticides, all logging operations, and all forest management techniques employed to enhance the growth of stands of trees or timber.
(23) "Soil conservation commission" means an agency of state government as created in section 22-2718, Idaho Code.
(24) "Soil conservation district" means an entity of state government as defined in section 22-2717, Idaho Code.
(25) "State" means the state of Idaho.

(26) "State water quality management plan" means the state management plan developed and updated by the department in accordance with sections 205, 208, and 303 of the federal clean water act.
(27) "Total maximum daily load (TMDL)" means a plan for a water body not fully supporting designated beneficial uses and includes the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, and natural background levels of the pollutant impacting the water body. Pollutant allocations established through TMDLs shall be at a level necessary to implement the applicable water quality standards for the identified pollutants with seasonal variations and a margin of safety to account for uncertainty concerning the relationship between the pollutant loading and water quality standards.
(28) "Waters or water body" means all the accumulations of surface water, natural and artificial, public and private, or parts thereof which are wholly or partially within, flow through or border upon this state. For the purposes of this chapter, water bodies shall not include municipal or industrial wastewater treatment or storage structures or private reservoirs, the operation of which has no effect on waters of the state.
(29) "Water pollution" is such alteration of the thermal, chemical, biological or radioactive properties of any waters of the state, or such discharge or release of any contaminant into the waters of the state as will or is likely to create a nuisance or render such waters harmful or
detrimental or injurious to public health, safety or welfare or to domestic, commercial, industrial, recreational, aesthetic or other legitimate uses or to livestock, wild animals, birds, fish or other aquatic life.
(30) "Watersheds" means the land area from which water flows into a stream or other body of water which drains the area. For the purposes of this chapter, the area of watersheds shall be recommended by the basin advisory group described in section 39-3613, Idaho Code.

39-3603. GENERAL WATER QUALITY STANDARD AND ANTIDEGRADATION POLICY. The existing instream beneficial uses of each water body and the level of water quality necessary to protect those uses shall be maintained and protected. Where the quality of waters exceeds levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water, that quality shall be maintained unless the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions of this chapter, and the department's planning processes, along with appropriate planning processes of other agencies, that lowering water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such reductions in water quality, the department shall assure water quality adequate to protect existing uses fully.

39-3604. DESIGNATION OF INSTREAM BENEFICIAL USES. For each surface water body, the director shall designate, pursuant to chapter 52, title 67, Idaho Code, and specifically list in the rules of the department, the beneficial use which that water body can reasonably be expected to support without regard to whether that use is fully supported at the time of such designation. In making such designations, the director shall consider the existing use of the water body and such physical, geological, chemical and biological measures as may affect the water body and shall make such designations

utilizing fully the public participation provisions set forth in this chapter. Designated uses as set forth in this chapter shall fully support existing uses. Designations of beneficial uses shall be reviewed as necessary and revised when such physical, chemical or biological measures indicate the need to do so. In revising a designated beneficial use, the director shall consider the economic impact of the revision and the economic costs required to fully support the revised designated beneficial use. There shall be no requirement for persons who either conduct nonpoint activities or who conduct operations on waters described in section 39-3609, Idaho Code, pursuant to a national pollution discharge elimination system permit to meet water quality criteria other than those necessary for the full support of the existing beneficial use for the water body pertinent to either the nonpoint activity or point source permit in question, except as provided in section 39-3611, Idaho Code.

39-3605. IDENTIFICATION OF REFERENCE STREAMS OR CONDITIONS. The director shall, in a manner consistent with the public participation provisions set forth in this chapter and in accordance with chapter 52, title 67, Idaho Code, identify reference streams or conditions to assist in determining when designated beneficial uses are being fully supported. Streams or conditions shall be selected to represent the land types, land uses and geophysical features of the basins described in this chapter. Reference streams or conditions shall be representative of one (1) of the following:
(1) A stream or other water body reflecting natural conditions with few impacts from human activities and which is representative of the highest level of support attainable in the basin; or
(2) A stream or water body reflecting the minimum conditions necessary to fully support the designated beneficial uses; or
(3) Physical, chemical and biological indicators identified in the rules of the department which reflect full support of designated beneficial uses.

39-3605C. ENVIRONMENTAL REMEDIATION FUND ESTABLISHED. There is hereby created in the state treasury a fund to be known as the environmental remediation fund. Surplus moneys in the environmental remediation fund shall be invested by the state treasurer in the manner provided for idle state moneys in the state treasury under section 67-1210, Idaho Code. Interest received on all such investments shall be paid into the environmental remediation fund. The fund may have paid into it:
(1) Legislative appropriations and transfers from other funds;
(2) All donations and grants from any source which may be used for the provisions of this act;
(3) Any other funds which may hereafter be provided by law.

39-3606. USE OF REFERENCE STREAMS OR CONDITIONS TO DETERMINE FULL SUPPORT OF BENEFICIAL USES. The director, in consultation with the basin advisory group, shall conduct monitoring to determine if designated beneficial uses are fully supported. In making such determination, the director shall compare the physical, chemical and biological measures of the water body in question with the reference stream or condition appropriate to the land type, land uses and geophysical features of the water body in question as described in section 39-3605(2), Idaho Code. If the water body in question has such physical, chemical or biological measures as the reference water body or condition, even though such measures may be diminished from the conditions set forth in

section 39-3605(1), Idaho Code, then the director shall deem the designated beneficial uses for the water in question to be fully supported and as having achieved the objectives of the federal clean water act and of this chapter. When site-specific standards have been developed for an activity pursuant to the rules of the department, the use of reference streams as described in this section shall not be necessary.

39-3606C. APPROPRIATION OF ENVIRONMENTAL REMEDIATION FUND -- PURPOSE OF CHAPTER. Moneys in the environmental remediation fund may be used for annual legislative appropriations for the purpose of environmental cleanup and remediation and restoration in, but not limited to, the following areas:
(1) To provide the state's matching share of grants for remediation including superfund grants;
(2) To provide for the operations of remediation activities.

39-3607. MONITORING TO DETERMINE SUPPORT OF BENEFICIAL USES. The director shall conduct a beneficial use attainability and status survey to identify appropriate designated uses and to determine the status of designated beneficial uses in each water body. Measures to determine appropriate designated uses and the status of designated beneficial uses shall include appropriate water quality standards as identified in the rules of the department in conjunction with biological or aquatic habitat measures that may include, but are not limited to: stream width, stream depth, stream shade, sediment, bank stability, water flows, physical characteristics of the stream that affect habitat for fish, macro invertebrate species or other aquatic life, and the variety and number of fish or other aquatic life. Previous assessments of beneficial use attainability and status which are of a quality and content acceptable to the director shall constitute the baseline data against which future assessments shall be made to determine changes in the water body and what beneficial uses can be attained in it. In addition, the director, to the extent possible, may determine whether changes in the condition of the water body are the result of past or ongoing point or nonpoint source activities. The director shall also seek information from appropriate public agencies regarding land uses and geological or other information for the watershed which may affect water quality and the ability of the water body in question to fully support or attain designated beneficial uses. In carrying out the provisions of this section, the director may contract with private enterprises or public agencies to provide the desired data.

39-3608. REGULATORY ACTIONS FOR WATER BODIES WHERE BENEFICIAL USES ARE FULLY SUPPORTED. For streams or other water bodies where the director has determined that designated beneficial uses are being fully supported, the director shall assure, in a manner consistent with other existing applicable statutes, and rules, that all programs deemed necessary to maintain full support of designated beneficial uses are employed. In providing such assurances, the director may enter together into an agreement with public agencies in accordance with sections 67-2326 through 67-2333, Idaho Code.

39-3609. IDENTIFICATION OF WATER BODIES WHERE BENEFICIAL USES ARE NOT FULLY SUPPORTED. In accordance with the provisions set forth in the federal clean water act and the public participation provisions set forth in this chapter, the director shall notify the appropriate public agencies of any water bodies in which the designated beneficial uses are not fully supported. For water bodies so identified, the director shall place such water bodies into one (1) of the following priority classifications for the development of total maximum daily load or equivalent processes:
(1) "High," wherein definitive and generally accepted water quality data indicate that unless remedial actions are taken in the near term there will be significant risk to designated or existing beneficial uses of a particular water body. The director in establishing this category, shall consider public involvement as set forth in this chapter.
(2) "Medium," wherein water quality data indicate that unless remedial actions are taken there will be risks to designated or existing beneficial uses.
(3) "Low," wherein limited or subjective water quality data indicate designated uses are not fully supported, but that risks to human health, aquatic life, or the recreational, economic or aesthetic importance of a particular water body are minimal.

39-3610. GENERAL LIMITATIONS ON POINT AND NONPOINT SOURCES FOR WATER BODIES NOT FULLY SUPPORTING BENEFICIAL USES. The director shall assure, in a manner consistent with existing statutes or rules, that for each category of water body, as described in section 39-3609(1) through (3), Idaho Code, the following limitations shall apply:
(1) For waters in the "high," category a total maximum daily load or equivalent process as described in this chapter shall be undertaken. Provided however, that nothing in this section shall be interpreted as requiring best management practices for agricultural operations which are not adopted on a voluntary basis.
(2) For waters in the "medium" category, such changes in permitted discharges from point sources on the water body or to the best management practices for nonpoint sources within the watershed deemed necessary to prohibit further impairment of the designated or existing beneficial uses.
(3) For waters in the "low" category, such changes in permitted discharges from point sources on the water body or to the best management practices for nonpoint sources within the watershed deemed necessary to prohibit further impairment of the designated or existing beneficial uses.

39-3611. DEVELOPMENT AND IMPLEMENTATION OF TOTAL MAXIMUM DAILY LOAD OR EQUIVALENT PROCESSES. For water bodies described in section 39-3609, Idaho Code, the director shall, in accordance with the priorities set forth in section 39-3610, Idaho Code, and in accordance with sections 39-3614 and 39-3616, Idaho Code, and as required by the federal clean water act, develop a total maximum daily load to control point source and nonpoint sources of pollution on the water body. For water bodies where an applicable water quality standard has not been attained due to impacts that occurred prior to 1972, no further restrictions under a total maximum daily load process shall be placed on a point source discharge unless the point source contribution of a pollutant exceeds twenty-five percent (25%) of the total load for that pollutant.

Existing uses shall be maintained on all such water bodies. Total maximum daily load processes developed pursuant to this section shall include, but not be limited to:
(1) Identification of pollutant(s) impacting the water body;
(2) An inventory of all point and nonpoint sources of the identified pollutant, if practical, or an analysis of the land types, land uses and geographical features within the watershed that may be contributing identified pollutants to the water body;
(3) An analysis of why current control strategies are not effective in assuring full support of designated beneficial uses;
(4) A plan to monitor and evaluate progress toward water quality progress and to ascertain when designated beneficial uses will be fully supported;
(5) Pollution control strategies for both point sources and nonpoint sources for reducing those sources of pollution;
(6) Identification of the period of time necessary to achieve full support of designated beneficial uses; and
(7) An adequate margin of safety to account for uncertainty. Point source discharges for which a national pollutant discharge elimination system permit is approved after January 1, 1995, shall be deemed to have met the requirements of this section.

39-3612. INTEGRATION OF TOTAL MAXIMUM DAILY LOAD PROCESSES WITH OTHER PROGRAMS. Upon completion of total maximum daily load processes as set forth in section 39-3611, Idaho Code, the director shall, subject to the provisions of chapter 52, title 67, Idaho Code, adopt such processes as part of the state's water quality management plan developed pursuant to the federal clean water act. Upon such adoption, the provisions of these processes shall be enforced through normal enforcement practices of designated agencies as set forth in the state's water quality management plan.

39-3613. CREATION OF BASIN ADVISORY GROUPS. (1) The director, in consultation with the designated agencies, shall name, for each of the state's major river basins, no less than one (1) basin advisory group which shall generally advise the director on water quality objectives for each basin and work in a cooperative manner with the director to achieve these objectives. Each such group shall establish by majority vote, operating procedures to guide the work of the group. Members shall be compensated pursuant to section 59-509(c), Idaho Code. The membership of each basin advisory group shall be representative of the industries and interests directly affected by the implementation of water quality programs within the basin and each member of the group shall either reside within the basin or represent persons with a real property interest within the basin. Recognized groups representing those industries or interests in the basin may nominate members of the group to the director. Each basin advisory group named by the director shall reflect a balanced representation of the interests in the basin and shall, where appropriate, include a representative from each of the following agriculture, mining, nonmunicipal point source discharge permittees, forest products, local government, livestock, Indian tribes (for areas within reservation boundaries), water-based recreation, and environmental interests. In addition, the director shall name one (1) person to represent the public at

large who may reside outside the basin. Members named to the basin advisory groups shall, in the opinion of the director, have demonstrated interest or expertise which will be of benefit to the work of the basin advisory group. The director may also name as may be needed those who have expertise necessary to assist in the work of the basin advisory group who shall serve as technical nonvoting advisers to the basin advisory group. (2) The governor shall establish a commission to be known as the Coeur d'Alene River basin commission whose membership is stated below for the Coeur d'Alene River basin, including the north and south forks of the Coeur d'Alene River, the main stem of the Coeur d'Alene River, Lake Coeur d'Alene and the Spokane River to replace and fulfill the duties of the basin advisory group and the watershed advisory group for those rivers and Lake Coeur d'Alene as stated in this section and sections 39-3614 through 39-3616, Idaho Code, as these duties related to heavy metal impacts in the Coeur d'Alene River basin. At the discretion of the governor, the commission may be asked to perform duties other than those specified in sections 39-3613 through 39-3616, Idaho Code. For duties related to sections 39-3613 through 39-3616, Idaho Code, the commission shall report to the director. For all other duties assigned the commission by the governor, the commission shall report to the governor, the speaker of the house of representatives and the president pro tempore of the senate. The governor shall appoint the following members of the commission one (1) representative of the governor; one (1) representative of the division of environmental quality of the department of health and welfare; one (1) representative of the department of lands; one (1) representative each of the county governments of Benewah county, Kootenai county and Shoshone county; one (1) representative of the trustees established under the settlement agreement of May 3, 1986, entered in State of Idaho v. Bunker Hill Co., No. 83-3161 (D. Idaho); two (2) representatives of the citizen's advisory committee of the Coeur d'Alene basin restoration project; one (1) representative of the mining industry; and one (1) representative of other affected industries. In addition to the governor's appointees, the commission shall have the following representatives appointed one (1) representative of the U.S. environmental protection agency appointed by the agency; one (1) representative of the U.S. department of agriculture and the U.S. department of interior to be appointed jointly by those agencies; and one (1) representative of the Coeur d'Alene tribe appointed by the tribe. The term of a member of the commission shall be three (3) years. The governor may remove at his discretion any members appointed by him. The commission shall operate by a simple majority vote of the members of the commission. The members of the commission shall elect a chairperson annually from the members of the commission. Members of the commission who are not state employees shall be compensated as provided in section 59-509(b), Idaho Code, if they are not otherwise being compensated for travel costs and per diem for serving on the commission.

39-3614. DUTIES OF THE BASIN ADVISORY GROUP. Each basin advisory group shall meet as necessary to conduct the group's business and to provide general coordination of the water quality programs of all public agencies pertinent to each basin. Duties of the basin advisory groups shall include, but not be limited to, providing advice to the director for:
(1) Determining priorities for monitoring;
(2) Revisions in the beneficial uses designated for each stream and the status and attainability of designated or existing beneficial uses for the water bodies within the basin;

(3) Assigning water bodies to the categories described in section 39-3609, Idaho Code;
(4) Reviewing the development and implementation of total maximum daily load processes as described in section 39-3611, Idaho Code;
(5) Suggesting members of the watershed advisory groups described in section 39-3615, Idaho Code; and
(6) Establishing priorities for water quality programs within the basin based on the economic resources available to implement such programs. In carrying out the provisions of this chapter, the director and the basin advisory groups shall employ all means of public involvement deemed necessary, including the public involvement required by section 39-3603, Idaho Code, or required in chapter 52, title 67, Idaho Code, and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies.

39-3615. CREATION OF WATERSHED ADVISORY GROUPS. The director, with the advice of the appropriate basin advisory group, may name watershed advisory groups which will generally advise the department on the development and implementation of TMDLs and other state water quality plans, including those specific actions needed to control point and nonpoint sources of pollution within the watersheds of those water bodies where designated beneficial uses are not fully supported. Members of each watershed advisory group shall be representative of the industries and interests affected by the management of that watershed, along with representatives of local government and the land managing or regulatory agencies with an interest in the management of that watershed and the quality of the water bodies within it. Members of each watershed advisory group shall serve and shall not be reimbursed for their expenses during their term of service.

39-3616. DUTIES OF EACH WATERSHED ADVISORY GROUP. Each watershed advisory group shall generally be responsible for recommending those specific actions needed to control point and nonpoint sources of pollution within the watershed so that, within reasonable periods of time, designated beneficial uses are fully supported and other state water quality plans are achieved. Watershed advisory groups shall, as described in this chapter, develop and recommend actions needed to effectively control sources of pollution. In carrying out the provisions of this section, the director and the watershed advisory groups shall employ all means of public involvement deemed necessary or required in chapter 52, title 67, Idaho Code, and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies.

39-3617. DESIGNATION OF OUTSTANDING RESOURCE WATERS. Any person may request, in writing to the board of health and welfare, that a stream segment may be considered for designation as an outstanding resource water. The board shall recommend to the legislature those stream segments the board proposes for designation as outstanding resource waters. The legislature shall determine by law which such stream segments to designate as outstanding resource waters. Stream segments so designated shall be included in a list of outstanding resource waters to be compiled and updated by the department of health and welfare in its rules governing water quality standards. Interim status or special protection shall not be provided to streams recommended by the board prior

to legislative designation as an outstanding resource water. No state agency shall delay actions, or deny or delay the processing or approval of any permit for a nonpoint source activity based on nomination of a segment for designation as an outstanding resource water, or while the legislature is considering such designation.

39-3618. RESTRICTION PROVISIONS FOR NEW NONPOINT SOURCE ACTIVITIES ON OUTSTANDING RESOURCE WATERS. No person shall conduct a new or substantially modify an existing nonpoint source activity that can reasonably be expected to lower the water quality of an outstanding resource water, except for short-term or temporary nonpoint source activities which do not alter the essential character or special uses of a segment, issuance of water rights permits or licenses, allocation of water rights, or operation of water diversions or impoundments.

39-3619. CONTINUATION PROVISIONS FOR EXISTING ACTIVITIES ON OUTSTANDING RESOURCE WATERS. Existing activities may continue and shall be conducted in a manner that maintains and protects the current water quality of an outstanding resource water. The provisions of this section shall not affect short-term or temporary activities that do not alter the essential character or special uses of a segment, allocation of water rights, or operations of water diversions or impoundments, provided that such activities shall be conducted in conformance with applicable laws and regulations.

39-3620. APPROVAL PROVISIONS FOR BEST MANAGEMENT PRACTICES FOR NEW NONPOINT SOURCE ACTIVITIES ON OR AFFECTING OUTSTANDING RESOURCE WATERS. No person may conduct a new nonpoint source activity on or affecting an outstanding resource water, except for a short-term or temporary activity as set forth in section 39-3602, Idaho Code, prior to approval by the designated agency as provided in this section.

(1) Within six (6) months of designation of an outstanding resource water by the legislature, the designated agency shall develop best management practices for reasonably foreseeable new nonpoint source activities. In developing best management practices the designated agencies shall:

(a) Solicit technical advice from state and federal agencies, research institutions, and universities and consult with affected landowners, land managers, operators, and the public; and

(b) Shall assure that all public participation processes required by law have been completed, but if no public participation process is required by law, will require public notification and the opportunity to comment;

(c) Recommend proposed best management practices to the board of health and welfare.

(2) The board of health and welfare and designated agencies shall adopt the proposed best management practices that are in compliance with the rules and regulations governing water quality standards, and based on the recommendations of the designated agency and the comments received during the public participation process;

(3) After adoption, these best management practices will be known as the outstanding resource water best management practices and will be published by the designated agency. Outstanding resource water approved best management practices will be reviewed and revised where needed by the designated

agency every four (4) years in consultation with the department, landowners, federal managers, operators and the public to determine conformance with objectives of this act;
(4) Following adoption of best management practices, the designated agency shall require implementation of applicable outstanding resource water best management practices which will assure that water quality of an outstanding resource water is not lowered;
(5) Where outstanding resource water best management practices have not been adopted as set forth in subsections (1) through (4) of this section, the designated agency shall:

(a) Assure that all public participation processes required by law have been completed, but if no public participation process is required by law, the designated agency shall provide for public notification of the new activity and the opportunity to comment;
(b) Determine that the site-specific best management practices selected for a new nonpoint source activity are designed to ensure that water quality of the outstanding resource water is not lowered; and
(c) Provide for review by the department that the activity is in compliance with rules and regulations governing water quality standards.

(6) When the applicable outstanding resource water best management practices are applied, the landowner, land manager, or operator applying those practices will be in compliance with the provisions of this act. In the event water quality is lowered, the outstanding resource water best management practices will be revised within a time frame established by the designated agency to ensure water quality is restored.

39-3621. MONITORING PROVISIONS. The designated agencies, in cooperation with the appropriate land management agency and the department shall ensure best management practices are monitored for their effect on water quality. The monitoring results shall be presented to the department on a schedule agreed to between the designated agency and the department.

39-3622. ENFORCEMENT PROVISIONS. (1) The designated agency shall ensure that the approved outstanding resource water best management practices are implemented for new nonpoint source activities. If a person fails to obtain approval from a designated agency for a new nonpoint source activity as set forth in section 39-3620, Idaho Code, or if a person fails to implement approved best management practices and water quality is lowered, the designated agency may institute a civil action for an immediate injunction to halt the activity or pursue other remedies provided by law.
(2) Nothing in this act shall restrict the enforcement authority of the department or designated agencies as provided by law.

39-3623. EFFECT OF RULES. Every rule promulgated within the authority conferred in sections 39-3617 through 39-3622, Idaho Code, shall be of temporary effect and shall become permanent only by enactment of statute at the first regular session following adoption of the rule. Rules not approved in the above manner shall be rejected, null, void and of no force and effect on July 1, following submission of the rules to the legislature. The rules promulgated within the authority conferred in this act and

adopted by the board of health and welfare on January 31, 1990, and contained in IDAPA 16.01.2003,31 and 16.01.2003,32 and 16.01.2053,01 through 16.01.2053,07, are hereby approved by the legislature.

39-3624. DECLARATION OF POLICY -- DESIGNATION OF DIRECTOR. The legislature, recognizing that water is one (1) of the state's most valuable natural resources, has adopted water quality standards and authorized the director of the department of health and welfare to implement these standards. In order to provide and maintain maximum water quality in the state for domestic, industrial, agricultural (irrigation and stock watering), mining, manufacturing, electric power generation, municipal, fish culture, artificial ground water recharge, transportation and recreational purposes at the earliest possible date, and to conform to the expressed intent of congress to abate pollution of ground waters, streams and lakes, the legislature declares the purpose of this act is to enhance and preserve the quality and value of the water resources of the state of Idaho and to assist in the prevention, control, abatement and monitoring of water pollution. In consequence of the benefits resulting to the public health, welfare and economy it is hereby declared to be the policy of the state of Idaho to protect this natural resource by assisting in monitoring, preventing and controlling water pollution; to support and aid technical and planning research leading to the prevention and control of water pollution, and to provide financial and technical assistance to municipalities, soil conservation districts and other agencies in the abatement and prevention of water pollution. The director of the department of health and welfare shall administer this act and nothing herein shall be construed as impairing or in any manner affecting the statutory authority or jurisdiction of municipalities in providing domestic water, sewage collection and treatment.

39-3625. DEFINITIONS.

A. "Sewage treatment works" means any facility for the purpose of collecting, treating, neutralizing or stabilizing sewage or industrial wastes of a liquid nature, including treatment by disposal plants, the necessary intercepting, outfall and outlet sewers, pumping stations integral to such plants or sewers, equipment and furnishings thereof and their appurtenances.

B. "Construction" means the erection, building, acquisition, alteration, reconstruction, improvement or extension of sewage treatment works or best management practices, preliminary planning to determine the economic and engineering feasibility of sewage treatment works or best management practices, the engineering, architectural, legal, fiscal and economic investigations, reports and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary in the construction of sewage treatment works or best management practices, and the inspection and supervision of the construction of sewage treatment works or best management practices.

C. "Eligible construction project" means a project for construction of sewage treatment works or for a project for the application of best management practices as set forth in the approved state water quality plan, in related project areas:

1. For which approval of the Idaho board of health and welfare is required under section 39-118, Idaho Code;
2. Which is, in the judgment of the Idaho board of health and welfare, eligible for water pollution abatement assistance, whether or not federal funds are then available therefor;

3. Which conforms with applicable rules of the Idaho board of health and welfare;
4. Which is, in the judgment of the Idaho board of health and welfare, necessary for the accomplishment of the state's policy of water purity as stated in section 39-3601, Idaho Code; and
5. Which is needed, in the judgment of the Idaho board of health and welfare, to correct existing water pollution problems or public health hazards and to provide reasonable reserve capacity to prevent future water pollution problems or public health hazards.

D. "Municipality" means any county, city, special service district, nonprofit corporation or other governmental entity having authority to dispose of sewage, industrial wastes, or other wastes, any Indian tribe or authorized Indian tribal organization, or any combination of two (2) or more of the foregoing acting jointly, in connection with an eligible project.

E. "Board" means the Idaho board of health and welfare.

F. "Department" means the Idaho department of health and welfare.

G. "Director" means the director of the Idaho department of health and welfare.

H. "Nondomestic wastewater" means wastewater whose source of contamination is not principally human excreta.

I. "Best management practice" means practices, techniques or measures identified in the state water quality plan which are determined to be the most effective, practicable means of preventing or reducing pollutants generated from nonpoint sources to a level compatible with water quality goals.

J. "Soil conservation district" means an entity of state government as defined in section 22-2717, Idaho Code.

K. "Soil conservation commission" means an agency of state government as created by section 22-2718, Idaho Code.

L. "Nonpoint source pollution" means water pollution that comes from many varied, nonspecific and diffused sources and can be categorized by the general land disturbing activity that causes the pollution.

M. "Training program" means any course of training established to provide sewage treatment plant operating personnel with increased knowledge to improve their ability to operate and maintain sewage treatment works.

39-3626. AUTHORIZATION OF GRANTS AND LOANS -- DESIGNATION OF ADMINISTERING AGENCY -- RESERVATION OF FUNDS FOR OPERATIONS -- CRITERIA -- PRIORITY PROJECTS -- ELIGIBLE PROJECTS.

A. The state of Idaho is hereby authorized to make grants and loans at or below market interest rates, as funds are available, to any municipality or soil conservation district to assist said municipality or soil conservation district in the construction of sewage treatment works or application of best management practices and to provide for training of treatment plant operating personnel.

B. The Idaho board of health and welfare through the department of health and welfare shall be the agency for administration of funds authorized for grants or loans under this act, and may reserve up to four percent (4%) of the moneys accruing annually to the water pollution control and wastewater facility loan accounts to be appropriated annually for the purpose of operating the water quality programs

established pursuant to this chapter. The board may also reserve up to six percent (6%) of the moneys accruing annually to the water pollution control account to be appropriated annually for the purpose of conducting water quality studies including monitoring.

C. In allocating state construction grants and loans under this act, the Idaho board of health and welfare shall give consideration to water pollution control needs and protection of public health.

D. Pursuant to subsection C the Idaho board of health and welfare shall establish a list of priority municipal sewage facility projects. The Idaho board of health and welfare with the approval of the Idaho soil conservation commission shall establish a list of priority projects for control of agricultural nonpoint source pollution. These priority lists shall be used as the method for allocation of funds granted or loaned under this act.

39-3627. PAYMENTS BY STATE BOARD OF HEALTH AND WELFARE -- CONTRACTS WITH MUNICIPALITIES, SOIL CONSERVATION DISTRICTS OR SOIL CONSERVATION COMMISSION -- RULES -- APPROVAL OF ATTORNEY GENERAL -- AUDIT OF PAYMENTS.

A. The Idaho board of health and welfare may make payments not to exceed ninety percent (90%) of the estimated reasonable cost of an eligible construction project funded by a grant. Payments may be made which are equal to one hundred percent (100%) of the estimated reasonable cost of an eligible construction project funded by a loan.

B. The Idaho board of health and welfare may, in the name of the state of Idaho, enter into contracts with municipalities or soil conservation districts, and any such municipality or soil conservation district may enter into a contract with the Idaho board of health and welfare, concerning eligible construction projects. Any such contract may include such provisions as may be agreed upon by the parties thereto, and shall include, in substance, the following provisions:

1. An estimate of the reasonable cost of the project as determined by the Idaho board of health and welfare.

2. An agreement by the municipality, binding for the actual service life of the sewage treatment works:

a. To proceed expeditiously with, and complete, the project in accordance with plans approved pursuant to section 39-118, Idaho Code.

b. To commence operation of the sewage treatment works on completion of the project, and not to discontinue operation or dispose of the sewage treatment works without the approval of the board of health and welfare.

c. To operate and maintain the sewage treatment works in accordance with applicable provisions and rules of the board.

d. To make available on an equitable basis the services of the sewage treatment works to the residents and commercial and industrial establishments of areas it was designed to serve.

e. To provide for the payment of the municipality's share of the cost of the project when the project is built using grant funds.

f. To develop and to secure the approval of the department of plans for the operation and maintenance of the sewage treatment works; and of plans and programs for the recovery of the capital costs and operating expenses of the works or system.

g. To allow the board to make loans of up to one hundred percent (100%) and supplemental grants based upon financial capability to a municipality for the estimated reasonable cost of an eligible project, which may include treatment of nondomestic wastewater.

h. To provide for the accumulation of funds through the use of taxing powers, through charges made for services, through revenue bonds, or otherwise, for the purposes of (1) capital replacement, (2) future improvement, betterment, and extension of such works occasioned by increased wastewater loadings on the works, and (3) establishing a fund dedicated solely to repayment of principal and interest of loans made subsequent to this chapter.

i. To commence annual principal and interest payments not later than one (1) year from the date construction is completed and to provide for full amortization of loans not later than twenty (20) years from the date project construction is completed.

3. The terms under which the Idaho board of health and welfare may unilaterally terminate the contract and/or seek repayment from the municipality or soil conservation district of sums already paid pursuant to the contract for noncompliance by the municipality or soil conservation district with the terms and conditions of the contract and the provisions of this chapter.

4. An agreement by the soil conservation district, binding for the life of the eligible project:

a. To develop water quality plans for landowners in the project areas and provide cost-share payments to landowners for installation of best management practices.

b. To determine cost-share rates in conjunction with the state soil conservation commission for best management practices.

c. In conjunction with the state soil conservation commission establish a method for project administration and provisions for technical assistance to landowners.

d. To allow the state to give grants of up to ninety percent (90%) of the estimated reasonable cost for best management practices installation, technical assistance and project administration of an eligible project.

e. To develop and to secure the approval of the department and the state soil conservation commission of plans for operation of the eligible project.

f. To ensure that the local matching share of the cost of the project is provided.

g. To assure an adequate level of landowner participation and application of best management practices to insure water quality goals are met.

C. The Idaho board of health and welfare may, in the name of the state of Idaho, enter into contracts with the soil conservation commission, and the soil conservation commission may enter into contracts with the Idaho board of health and welfare, to provide technical assistance to soil conservation districts which have entered grant agreements pursuant to this chapter. Any such contract may include such provisions agreed upon by the parties thereto, and shall include, in substance, the following provisions:

1. An estimate of the reasonable cost of technical assistance as determined by the Idaho board of health and welfare.
2. The terms under which the Idaho board of health and welfare may unilaterally terminate the contract, and/or seek repayment of sums paid pursuant to the contract, for noncompliance by the soil conservation commission with the terms and conditions of the contract, the provisions of this chapter, or rules adopted pursuant thereto.

D. The board may adopt rules necessary for the making and enforcing of contracts hereunder and establishing procedures to be followed in applying for state construction grants or loans or training grants herein authorized as shall be necessary for the effective administration of the grants and loans program.

E. All contracts entered into pursuant to this section shall be subject to approval by the attorney general as to form. All payments by the state pursuant to such contracts shall be made after audit and upon warrant as provided by law on vouchers approved by the director.

39-3628. WATER POLLUTION CONTROL ACCOUNT ESTABLISHED. There is hereby created and established in the state treasury a separate account to be known as the water pollution control account. The account shall have paid into it:

1. The moneys provided for in section 14-425, Idaho Code, that are paid over to the state treasurer shall be deposited to the credit of the water pollution control account, and not to the credit of the state general account;
2. All donations and grants from any source which may be used for the provisions of this act;
3. Any other funds which may hereafter be provided by law.

39-3629. WASTEWATER FACILITY LOAN ACCOUNT ESTABLISHED. There is hereby created and established in the agency asset fund in the state treasury an account to be known as the wastewater facility loan account. Surplus moneys in the wastewater facility loan account shall be invested by the state treasurer in the manner provided for idle state moneys in the state treasury under section 67-1210, Idaho Code. Interest received on all such investments shall be paid into the wastewater facility loan account. The account shall have paid into it:

1. Federal funds which are received by the state to provide for wastewater facility loans together with required state matching funds coming from a portion of the moneys in the water pollution control account as established in section 39-3628, Idaho Code;
2. All donations and grants from any source which may be used for the provisions of this section;
3. All principal and interest repayments of loans made pursuant to this chapter; and
4. Any other moneys which may hereafter be provided by law.

39-3630. APPROPRIATION OF WATER POLLUTION CONTROL ACCOUNT -- PURPOSE OF CHAPTER. Moneys in the water pollution control account are hereby perpetually appropriated for the following purposes:

1. To provide the state's matching share of grants made under the provisions of this chapter.

2. To provide revenue for the payment of general obligation bonds issued pursuant to section 39-3633, Idaho Code, and general obligation refunding bonds issued pursuant to chapter 115, 1973 laws of the state of Idaho.
3. To provide for the operations of the water quality programs established pursuant to this chapter.
4. To provide direct grants or contracts for the purpose of providing training for drinking water system and sewage treatment plant operating personnel.
5. To provide payments for contracts entered into pursuant to this chapter.
6. To provide funds to capitalize the wastewater facility loan account established in section 39-3629, Idaho Code, including the required matching share of federal capitalization funds.
7. To provide funds to capitalize the drinking water loan account established in section 39-7602, Idaho Code, including the required matching share of federal capitalization funds.

39-3631. APPROPRIATION OF WASTEWATER FACILITY LOAN ACCOUNT -- PURPOSE OF CHAPTER. Moneys in the wastewater facility loan account are hereby perpetually appropriated for the following purposes:
1. To provide loans and other forms of financial assistance authorized under title VI of the federal water quality act of 1987, P.L. 100-4, to any municipality for construction of sewage treatment works.
2. To provide funds, subject to annual federal and state appropriation and applicable federal limitations, for operation of the wastewater facility loan program by the department of health and welfare.

39-3632. GRANTS AND LOANS FOR DESIGN, PLANNING OR CONSTRUCTION -- LIMITS ON AMOUNT OF GRANTS AND LOANS.
(1) The board of health and welfare may divide financial assistance for eligible construction projects into separate grants, loans or a combination of grants and loans for the design, planning, and construction stages of project development. The making of a grant or loan for early stages of a project does not obligate the state to make a grant or loans for later stages of the same project.
(2) The board may make grants from the water pollution control account; provided, that the projected payments for such grants would not cause the projected balance in the account to fall below zero at any time. All grant payments shall be subject to the availability of moneys in the account.
(3) The board may make loans from the wastewater facility loan account, provided that the projected payments for such loans would not cause the projected balance in the account to fall below zero at any time. All loan payments shall be subject to the availability of moneys in the account.

39-3633. WATER POLLUTION CONTROL BONDS.
A. Water pollution control bonds, as provided by section 5, article VIII of the constitution of the state of Idaho, shall be authorized by resolution of the state board of health and welfare. The bonds may be issued in one or more series, may bear such date or dates, may be in such denomination or denominations, may mature at such time or times, may mature in such amount or amounts, may bear interest at the most advantageous rate or rates available to the state at the time offered, payable semiannually, may be in such form, either coupon or registered, may carry such registration and such

conversion privileges, may be executed in such manner, may be payable in such medium of payment, at such place or places, may be subject to such terms of redemption, with or without premium, as such resolution or other resolutions may provide. The bonds, if sold to a federal agency, may be sold at a private sale at not less than par and accrued interest, without advertising the same at competitive bidding. If not sold to a federal agency, the bonds shall be sold publicly in a manner to be provided by the state board of health and welfare. The bonds shall be fully negotiable within the meaning and for all purposes of the Uniform Commercial Code.

B. The moneys derived from the sale of any bonds shall be deposited in the state treasury to the credit of the water pollution control fund for the purposes of that fund.

C. All bonds issued pursuant to this act shall be obligations of the state and shall be payable in accordance with the terms of this act and the provisions of section 5, article VIII of the constitution of the state of Idaho.

39-3634. COTTAGE SITE DEFINED. "Cottage site" is defined as a state owned lot containing one (1) acre or less which is or may be leased by the state of Idaho primarily for recreational or homesite use by a lessee.

39-3635. COTTAGE SITE LEASES -- REQUIREMENTS -- CONSTRUCTION OF SEWAGE DISPOSAL FACILITIES -- CONNECTION TO WATER AND SEWER DISTRICT SYSTEMS -- PAYMENT OF CHARGES -- NOTIFICATION OF DEFAULTS -- SATISFACTION OF REQUIREMENTS.

(1) After the effective date of this act all cottage site leases authorized by the state of Idaho shall require that each lessee must construct, at his cost and expense, sewage disposal facilities, certified by the director of the department of health and welfare as adequate, as follows:

(a) For all new cottage or house construction completed after July 1, 1971 on any cottage site the certificate shall be issued prior to occupancy.

(b) Those cottages or houses existing on the cottage sites prior to the effective date of this act shall meet those standards required by the director of the department of health and welfare for certification within two (2) years of the effective date of this act, unless a public or private sewage collection or disposal system is being planned or constructed in which case the director of the department of health and welfare may grant extensions on a year by year basis but not exceed three (3) such extensions for any one (1) cottage site.

(c) Isolated dwellings on sites situated on mining, grazing or other similar types of state land board leases shall not be affected unless within two hundred (200) yards of any flowing stream or a lake.

(2) Wherever any cottage site is located within the boundaries of a district organized for water or sewer purposes, or a combination thereof, pursuant to the provisions of chapter 32, title 42, Idaho Code, as amended, the cottage site lessee shall connect his property to the sewer system of the district within sixty (60) days after written notice from the district so to do, provided, however, no cottage site lessee shall be compelled to connect his property with such sewer system unless a service line is brought by the district to a point within two hundred (200) feet of his dwelling place. All cottage site leases hereafter issued shall require, as a condition of acceptance thereof by the lessee, that the lessee

will connect his property to a district sewer system as required in this subsection (2). With respect to all cottage site leases issued subsequent to July 1, 1970, filing with the department issuing the lease of evidence of connection to the district sewer system as contemplated in this subsection (2) shall be conclusive evidence of compliance by the cottage site lessee with the requirements of subsection (1) of this section and of the provisions of the cottage site lease to provide sewage disposal facilities at the expense of the cottage site lessee. Each cottage site lessee whose cottage site is subject to connection to a district sewer system as required in this subsection (2) shall pay to the district to which the cottage site is required to be connected, in a timely manner and when due, all connection fees and charges, all monthly rates, tolls and charges, as provided by chapter 32, title 42, Idaho Code, as amended, and all special benefits payments in lieu of tax payments provided for in subsection (3) of this section.

(3) Notwithstanding that title to a cottage site remains in the state of Idaho, each cottage site lessee shall pay to any district operating a sewer system to which the cottage site is connected as provided in subsection (2) of this section, each year in the same manner and at the same time as county taxes are paid and collected a sum of money in lieu of taxes equal to the sum which would have been paid had the cottage site been held in private ownership, hereinafter called special benefits payments. The special benefits payments shall be computed by applying the millage levy of the district to the cottage site in the ordinary course to the assessed valuation of the property as determined by the county assessor of the county in which the cottage site is located. No special benefits payments shall be imposed prior to January 1, 1980. The cottage site lessee shall have such rights of protest, hearings and appeals with respect to the valuation of the cottage site for purposes of determining the special benefits payments as if such cottage site were held in private ownership. It shall be the duty of the county assessor to establish the value of each cottage site as compared to like property upon the request, in writing, of the district.

(4) Each water and sewer district shall immediately notify the department issuing a cottage site lease of the failure of any cottage site lessee to connect to the district sewer system, or to pay any connection fee or charge, monthly rate, toll or charge, or any special benefits payments, all as required or provided for in subsection (3) of this section. Any such notification shall set forth the amount of any such fees, charges or payments which are delinquent.

(5) Approval, pursuant to the provisions of section 39-118, Idaho Code, by the department of health and welfare of the plans and specifications of a sewer system to be constructed, acquired, improved or extended by a water and sewer district shall, as to all cottage sites connected to the district sewer system, satisfy the requirements of section 39-3637, Idaho Code.

(6) The state of Idaho, its boards, agencies or departments, shall not be liable, directly or indirectly, for any connection fees and charges, monthly rates, tolls and charges, or special benefits payments charged to cottage site lessees beyond those fees or payments collected from new lessees pursuant to section 58-304A, Idaho Code, and placed in the revolving fund created by section 58-141A, Idaho Code.

39-3636. FAILURE TO PROVIDE SEWAGE DISPOSAL -- PENALTIES. Failure to provide certified sewage disposal as provided in section 39-3635(1), Idaho Code, or failure to connect to a district sewer system or to pay, when due, any connection fee or charge, any monthly rate, toll or

charge, or any special benefits payment, all as required and provided for in subsections (2) and (3) of section 39-3635, Idaho Code, shall result in the following:
(a) Forfeiture of lease to the state of Idaho after reasonable notice and hearing, as shall be prescribed in rules to be adopted by the department issuing the lease pursuant to the applicable provisions of chapter 52, title 67, Idaho Code, as now or hereafter in force.
(b) Loss of sewage treatment facility credit on any transfer of lease or new lease of such site after notice and hearing before the department issuing such lease. The department issuing any cottage site lease, upon its own motion or upon receiving notice from a water and sewer district pursuant to the provisions of section 39-3635(4), Idaho Code, of the failure of a cottage site lessee to connect to a district sewer system or to pay any connection fee or charge, any monthly rate, toll or charge, or any special benefits payments, when due, is authorized to invoke either or both remedies at its discretion or may take such other action allowed by law to enforce the provisions of the lease and the requirements of section 39-3635, Idaho Code, that each cottage site lessee connect to a district sewer system and pay all fees, charges and payments when due.

39-3637. STATE BOARD OF HEALTH AND WELFARE -- RULES -- INSPECTION. The state board of health and welfare shall adopt reasonable rules and standards for the installation and operation of cottage site sewage treatment facilities, and shall provide adequate inspection services so as not to delay unreasonably the construction of any lessee. Duplicate originals of all certificates issued by the director of the department of health and welfare shall be filed with the director of the department issuing a cottage site lease. The director of the department of health and welfare shall initiate on or before July 1, 1971, a site by site inventory of such sewage disposal systems that may exist. The inventory shall ascertain:
(a) If the existing system meets the board standards. If the system meets all standards and rules for cottage sewage disposal systems a certificate shall be issued immediately.
(b) If the system does not meet the board standards. In such case, the lessee shall be advised in writing of the actions necessary to meet the proper standards. A copy of such report shall be filed with the state agency granting the lease. The modifications, unless specifically exempted from the time limit, as provided in this act, shall be completed within two (2) years of the date of the written notice.

39-3638. FINAL DETERMINATION BY ISSUING DEPARTMENT AUTHORIZED. In the event of dispute, unreasonable delay on the part of lessee or the department of health and welfare, the department issuing a cottage site lease may, upon notice and hearing, make a final determination consistent with control of water pollution and public health.

39-3639. CONTINUATION OF COTTAGE SITE LEASE PROGRAM.
(1) The legislature of the state of Idaho recognizes that certain state lands are presently leased for cottage site uses and are subject to leases and contracts duly authorized by law. It is legislative intent to continue to recognize such leases. However, it is also legislative intent that no new or additional lands be platted, subdivided or leased for cottage site leases, unless and until the condition and precedents listed below have been met.

(2) No additional state lands shall be further platted or subdivided, nor any new cottage site leases entered into, unless and until the following provisions have been met:

(a) The department of lands shall have completed a comprehensive planning process, as to its further participation in, and extension of, the cottage site lease program;

(b) The department of lands shall complete a comprehensive planning process as to the extension of cottage site leasing for that immediate geographic area;

(c) No new cottage site leases shall be entered into unless and until an adequate water system and an adequate sewage collection and treatment system have been installed. Both of these systems shall meet applicable state health standards and rules. (i) The costs for providing these systems shall be incorporated into the annual lease rates for the newly created serviced lots, unless other specific provisions for payment have been required by the state board of land commissioners. (ii) As an alternate means of securing the necessary funds for the construction of water and sewer systems which must meet state standards and rules, the state board of land commissioners may include as a condition of the new lease the requirement that the lessee must prepay his share of the construction costs of the water and sewer system. In all cases, however, such prepayment shall be made, and adequate water and sewer systems shall be installed and in operation before such cottage sites may be inhabited.

(3) The provisions of subsection (1) herein shall not apply to unimproved lots within cottage subdivisions in which at least eighty per cent (80%) of the lots already have cottages upon them.

State of Idaho

Guidance for Development of Total Maximum Daily Loads

June 8, 1999

Water Quality Programs / Surface Water Section
Idaho Division of Environmental Quality

IDAHO TMDL Development Guidance

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A Brief TMDL Background

The Clean Water Act and Section 303(d)

Section 303(d)(1) of the Clean Water Act requires states to prepare a list of waters not meeting state water quality standards in spite of technology based pollution control efforts. This list must include a priority ranking "... taking into account severity of the pollution and the uses to be made of such waters." The prescribed remedy for these water quality limited waters is for states to determine the total maximum daily load (TMDL) for pollutants "... at a level necessary to implement applicable water quality standards with seasonal variations and a margin of safety ..." A margin of safety is included to account for any lack of knowledge about how limiting pollutant loads will attain water quality.

Section 303(d)(2) requires both the list and any total maximum daily loads developed by the state be submitted to the Environmental Protection Agency (EPA). The EPA is given thirty days to either approve or disapprove the state's submission. If the EPA disapproves, the agency has another thirty days to develop a list or TMDL for the state. Both the list and all TMDLs, either approved or developed by EPA, are incorporated into the state's continuing planning process as called for in section 303(e).

This language has been in the Clean Water Act since it was passed in 1972. It is the cornerstone of the approach of using instream standards to protect water quality, and provides an essential complement to technology-based controls, including required best management practices used for non-point source pollution control. Technology-based control sets minimum levels of waste treatment applied to all dischargers irrespective of receiving water quality. These controls are incorporated in discharge permits, focused on discernable point sources, and have been very successful in improving this nation's water quality in many areas.

However, with increasing population density and intensive land use, technology based control is not always enough. This is where water quality standards and TMDLs come in. By an analysis of pollutant loads and how they affect receiving water quality, an additional degree of pollution control is determined which goes beyond the practical or achievable minimums set by technology. In this way TMDLs are the backup to technology-based controls, they are waterbody, rather than source, dependent.

What is a TMDL Really?

A TMDL is a pollutant budget. This budget is most simply expressed in terms of loads, the quantities or mass of pollutants added to a waterbody. Pollutant loads can be calculated as the product of concentration and flow much like earnings can be calculated from hourly pay rate and number of hours worked. According to EPA regulations and guidance, this budget takes into account loads from point and non-point sources, and human-caused as well as natural background loads. The budget is

balanced at the point where water quality standards are just being met and is allocated among all the various sources. Like keeping money in the bank for a rainy day, some of the budget is set aside as the margin of safety. And like a business's cash flow concerns, the pollution budget must take into account the seasonality or cyclic nature of pollutant loads and receiving water capacity, so that a temporary shortfall does not occur.

In cases where numeric criteria for water quality criteria have been established, the balance point is fairly clear, but dependent on stream flow. However, fixed value criteria do not always make sense. Some pollutants are natural constituents of water and become a problem only when present in abnormal amounts, abnormality being very much tied to and confounded by natural environmental variations. Sediment and nutrients are two such complex pollutants, and narrative criteria are used in Idaho to address these. A narrative criterion simply says the water should not contain a pollutant in amounts that will impair the water's beneficial uses.

Idaho has moved to direct assessment of aquatic biology to determine if certain beneficial uses are impaired. Though powerful, biological assessment does not provide a numeric water column value with which to establish a water's pollutant load capacity. This requires a case by case evaluation to establish a site specific numeric target, greatly complicating TMDL development unless 'other appropriate measures' are used in place of a traditional load.

Some 303(d) History

Under section 303(d)(1), EPA was required to identify pollutants suitable for TMDL calculation, which they finally did in late 1978. Many of the issues regarding scope and applicability of TMDLs heard today were also voiced in 1978, but far fewer people were taking notice then. The EPA itself downplayed the role and importance of TMDLs, instead focusing on point source discharge permits and attending to oversight of waste water treatment construction grants.

The first Water Quality Planning and Management rules implementing 303(d), were adopted 11 January 1985 in 40 CFR, Part 130. At that time EPA still saw a limited role for TMDLs, stating in the Federal Register that "EPA believes it best serves the purposes of the [Clean Water] Act to require States to establish TMDLs and submit them to EPA for approval only where such TMDLs are needed to 'bridge the gap' between existing effluent limitations, other pollution controls, and WQS [Water Quality Standards]". In these rules EPA defines load, loading capacity, load allocations, and wasteload allocations and the requirements for a 303(d) list.

In April 1991, EPA published its first guidance document on TMDLs: *Guidance for Water Quality-based Decisions: The TMDL Process.* That document is still current and speaks to both the listing process and TMDL development. It is here that EPA first formalizes the ideas of phased TMDLs,

pollution source trade-offs, reasonable assurance, negotiating a schedule for pace of development, listing of threatened good quality waters, and biennial submission of lists starting in 1992. Biennial submission of lists was subsequently codified in July 1992 amendments to 40 CFR Part 130 as a step to merge reporting requirements under 305(b) and 303(d). It was specified that 1992 lists were due 22 October 1992. These amendments also require specific identification of TMDLs to be completed in the two years before the next list.

A compilation of EPA regulations, guidance, and policy memos was assembled and published in February 1997 as *Total Maximum Daily Load (TMDL) Program: Policy and Guidance Volume 1*. This three-inch ring binder includes the SF Salmon River TMDL in Idaho as one of thirteen case studies.

Recognizing a need to revise its regulations in the face of rising questions about the scope and requirements of TMDLs, EPA's Administrator requested a subgroup of the National Advisory Council for Environmental Policy be convened to provide advice. With 20 members representing state government, private industry, and environmental activists, the TMDL Federal Advisory Committee received its charge in November of 1996 and delivered a report of its recommendations 28 July 1998.

The EPA is currently drafting revised regulations based upon the FACA report which it hopes to promulgate by spring of 2000. Draft regulations are expected to be proposed and available for public review in the summer of 1999. These new rules will change the requirements for TMDL content and process. One likely major change is a FACA recommendation that implementation plans become an integral part of a TMDL submitted to EPA for approval.

<u>The Idaho Experience (The Lawsuit)</u>

In June 1989 Idaho submitted its first 303(d) list (as Appendix D of 1988 Water Quality Status Report and Nonpoint Source Assessment) with 31 waters. No pollutants or priority were stated and EPA neither approved or disapproved this list.

Idaho submitted its second list in August of 1992, as a separate list, ahead of schedule, but again specifying no pollutants or priorities. This list of 31 waters (8 additions and 8 deletions from 1989) received no response from EPA within the allotted 30 days. Not until 12 February 1993 did EPA issue a letter of "conditional approval" of the 1992 list, asking Idaho to evaluate certain EPA proposed additions of segments and pollutants. The letter also asked Idaho to solicit and respond to public comment, giving the state 90 days to reply. Idaho did not respond by 12 May, and EPA extended its deadline to 19 July 1993.

Tired of the lack of action, the Idaho Sporting Congress and Idaho Conservation League filed a 60 day notice of intent to sue EPA on 14 May 1993. Idaho submitted a revised 1992 list with 36 waters,

including pollutants and priorities (22 high, 4 medium, & 10 low) by the extended deadline, just five days after the plaintiffs filed their complaint.

The environmentalist's complaint faulted EPA for approval of a 303(d) list which did not include all water quality limited (WQL) waters in Idaho. They asked the court to order EPA to disapprove the 1992 list and all Idaho TMDL submissions (of which there was only one at the time, the SF Salmon River). As a further remedy, the plaintiffs sought court directive for EPA to identify WQLs, develop and implement TMDLs for Idaho, and to prohibit permitting of point source discharges until TMDLs were in place. Before the case was heard, EPA approved Idaho's 1992 list in a letter dated 18 August 1993.

As the case was being considered, Idaho developed a 1994 303(d) list of 61 waterbodies and submitted it to EPA on 9 February 1994. On 15 March 1994, EPA responded by asking the state to consider adding 200 waters and specific pollutants to the list. The state responded 8 April, with a 1994 list of 62 waters, 45 of which were high priority, 8 medium, and 9 low. This list also identified 31 TMDLs underway or targeted for initiation in the next two years.

On 13 April 1994, in a partial summary judgement, the court found EPA approval of Idaho's 1992 list "arbitrary and capricious" and remanded the issue to EPA with direction to develop a new list within 30 days. The EPA published notice of a draft list of 788 waters on 13 May and in the ensuing months went through a protracted public process to develop a comprehensive list for Idaho. Public comment was voluminous, causing EPA to extend the comment deadline once and take until 7 October to review all input and produce a final list with 962 303(d) waters. Despite this new list the lawsuit was not dismissed.

The EPA list became acknowledged to contain many errors (stream names, duplication, overlap, etc.) and streams not necessarily water quality impaired. In developing their 1994 list, EPA scoured several Idaho and federal agency reports. These consisted primarily of Idaho's 1992 303(b) report, 1991 Basin Status Reports and their Stream Segments of Concern (SSOCs), 1993 Lake Water Quality Assessment Report and several Forest Plans. Some streams ended up on the list, not for failure to meet Idaho Water Quality Standards, but rather for failure to meet other criteria such as Forest Service standards and guidelines. Others were added simply because of great public interest regardless of water quality, or because of good water quality the public wanted maintained, or because of perceived threats to water quality, all expressed as SSOC's. Much of the information used was qualitative rather than quantitative.

The 1995 Idaho legislature responded by passing SB 1284, codified in IDAPA 39-3601 *et seq.* Among other things, this new water quality law established Basin Advisory Groups (BAGs) and allowed for Watershed Advisory Groups (WAGs) to assist DEQ in prioritizing and implementing TMDLs. The legislature also responded by funding DEQ's biological assessment program known as BURP (Beneficial Use Reconnaissance Program). Not until 1996 did the legislature fund additional positions for DEQ to meet its obligations under the new law.

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Upon review of a plaintiff motion, the court on 19 May 1995 ruled against EPA for its failure "to determine, with Idaho, a reasonable schedule for the development of TMDLs for all waterbodies designated as WQLSs." Judge Dwyer ordered a schedule to be filed with the court within one year. Working with EPA, Idaho delivered a schedule on 15 May 1996, which set short term due dates (by year) for 42 high priority waters, and a long term commitment to develop 2 TMDLs per year in each of Idaho's six administrative basins. Taking Idaho's assumptions regarding de-listing of many streams, EPA estimated it would take 25 years, or until 2021, to work through the 1994 list. While the court considered this "25 year" schedule, Idaho submitted a 1996 303(d) list with only minor changes. Later, in April 1997, DEQ submitted some technical corrections to the list, eliminating some duplications. This trimmed the list slightly to 950 waters.

Dwyer rejected the "25 year" schedule on 26 September 1996 criticizing it for a lack of firm dates for all waters and finding no assurance that all necessary TMDLs would be developed even in 25 years "... unless hundreds of WQLS were to fall off the list." He agreed with the plaintiffs that massive adjustments to the list were unlikely. Figuring it would take Idaho a hundred years to complete all TMDLs at two per year per basin, he described the pace as glacial and ordered EPA to work with Idaho to provide a schedule for all 303(d) waters within six months. He further suggested that an overall time frame of five years was appropriate for the schedule, a time frame stated in a Georgia decision just days earlier.

The DEQ worked closely with EPA and negotiated with the plaintiffs to develop an eight-year schedule, as well as an administrative record to support it. This schedule was built around a subbasin by subbasin approach to grouping waters for assessment and loading analysis. It was predicated on agreement with EPA that TMDL implementation is a separate step in the process which comes after approval of a TMDL. Under this agreement implementation is not included as part of a TMDL submitted to EPA (page 2-1 of *Idaho TMDL Development Schedule: EPA Review and Evaluation*, April 1997). Idaho's Eight-year TMDL Development Schedule was presented to Dwyer on 8 April 1997 (Attachment A), along with EPA's review and evaluation and a stipulation that the schedule was reasonable and could be carried out by Idaho. The stipulations were so ordered the following day, and the case was finally dismissed on 24 June 1997.

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Introduction

The remainder of this document addresses various aspects of how DEQ and the State of Idaho intends to go about development of TMDLs. Though much discussion and review has gone into each section it is expected that our plan of attack will continue to change some with further experience and future changes in federal or state rules.

As one example of such change, this document originated as specific policy statements intended only to guide internal working arrangements. The document has evolved into guidance and broadened its audience somewhat to other agencies and interests outside DEQ.

Not all the answers you may seek about TMDLs will be answered herein, but hopefully the general framework will become clear. It is important to note that TMDLs are the focus of a lot of interest and discussion throughout this nation. Events outside Idaho have and will continue to shape what we call TMDLs and how we in Idaho deal with complex issues such as habitat and flow, narrative criteria, and estimating non-point source loads.

General Statement on Development Pace and Process

The State of Idaho intends to develop total maximum daily load (TMDL) analyses for all water quality limited waters on its' 1996 Clean Water Act §303(d) list, unless subsequently de-listed, by the end of 2005. The order and pace of TMDL development is presented in the State of Idaho eight year TMDL schedule agreed to on April 8, 1997 (Attachment A). The State of Idaho will also develop TMDLs for waterbodies determined to be water quality limited subsequent to the 1996 list. Where possible, additions to Idaho's §303(d) list will be addressed along with currently scheduled waters in the same subbasin, otherwise a separate date will be specified.

Development of TMDLs will be in accord with the provisions of the federal Clean Water Act, Idaho Code 39-3601 *et seq.*, and all other applicable laws. The Idaho Division of Environmental Quality (DEQ) is the lead agency for development of TMDLs for Idaho waters. However, the Environmental Protection Agency (EPA) will have a role in coordinating multi-jurisdictional TMDLs involving interstate or tribal waters.

Implementation of an approved TMDL is primarily the responsibility of designated agencies, as stated in Idaho Code 39-3612, in cooperation with landowners and managers. These designated agencies are defined in Idaho Code 39-3602 as the Department of Lands (IDL), for timber harvest, oil and gas exploration and development, and for mining; the Soil Conservation Commission (SCC) for grazing and agriculture; the Department of Transportation (IDT) for public roads; the Department of Agriculture (IDA) for aquaculture; and the DEQ for all other activities.

Purpose

Total maximum daily loads are watershed-based analyses of the quantities and sources of pollutants which prevent a water from meeting its beneficial uses. The aim is to restore those uses through reductions in pollutants added to the water. A watershed-based approach recognizes the effect of both point and nonpoint sources of pollution in degrading water quality. The analysis must identify the causes of beneficial use impairment and estimate pollutant loads which will meet water quality criteria and restore impaired uses within a specified time. Additional corrective actions will be needed only where application of required and other existing pollution controls are, or are expected to be, inadequate to meet Idaho's water quality standards.

Idaho's Eight-year Schedule

In Idaho's eight-year schedule, 42 high priority waterbodies are scheduled individually for completion by the end of 1999. Remaining medium and low priority waterbodies are scheduled, subbasin by subbasin, to be completed by the end of 2005. This schedule is based on calendar years and TMDLs are due to be submitted to the Environmental Protection Agency (EPA) no later than December 31 of the year scheduled.

The schedule allows that larger or more complex subbasins may be split for practical reasons. Where such splits occur, a portion may be done earlier than the date specified, but the entire subbasin will be completed by the date specified. It is also allowed that future conditions may warrant delay or advancement of a particular subbasin, therefore the schedule may be adjusted so long as the overall schedule and pace of development is met and concerned parties are consulted (see Appendix A, endnote 1).

Subbasin Approach

With a subbasin approach all waterbodies and pollutants on the current 303(d) list within a hydrologic subbasin should be addressed in a single document. Idaho has chosen this approach as a way to package adjacent waters and gain economy of scale in preparation of documents. There are 84 subbasins which are entirely or partially within Idaho (Figure 1).

The overall process may be broken down into three steps:

1) subbasin assessment,
2) loading analysis, and
3) implementation plan(s).

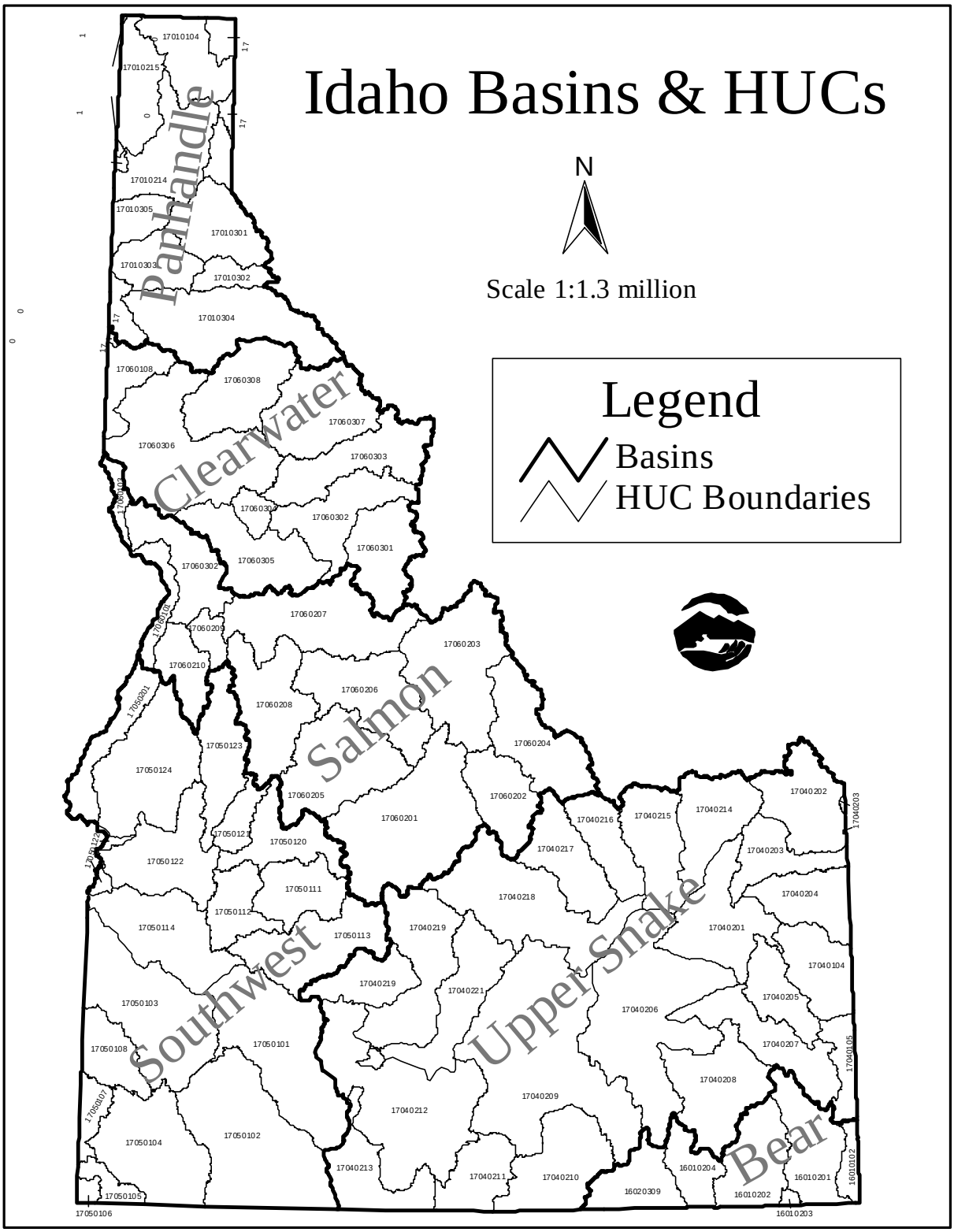


Figure 1. Idaho DEQ Administrative Basins and 4th Field Hydrologic Subbasins

These steps reflect a logical sequence of assessment, analysis and planning. The first two steps constitute the TMDL document, the product required under §303(d) to be submitted for EPA approval. The 8 April 1997 TMDL development schedule commits Idaho to deliver TMDLs in the years specified by subbasin. Implementation plans are not covered by the current schedule. This separation is made in consideration of meeting an eight-year time frame for the entire state and a distinction between §303(d) and §303(e) of the Clean Water Act.

Subbasin Assessment

Subbasin assessments are problem assessments conducted at the geographic scale of 4th field hydrologic units (cataloging units of the USGS), also referred to as subbasins. A subbasin assessment describes the affected area, the water quality concerns and status of beneficial uses of individual water bodies, nature and location of pollution sources, and a summary of past and ongoing pollution control activities. This may be a separate document or combined with the subsequent loading analyses.

Loading Analysis

Loading analysis provides an estimate of a waterbody's pollutant load capacity, a margin of safety, and allocations of load to pollutant sources defined as the TMDL in EPA regulations (40 CFR 130.2). Load capacity is the maximum quantity of a pollutant a water can receive and still meet water quality standards. This capacity is calculated for some critical or limiting condition, typically based on receiving water flow. In the classic case, maximum pollutant load must be limited so as not to exceed a statistically set minimum in load capacity based on receiving water low flow. Methods of determining load capacity will vary but generally fall into one of three categories: 1) product of an instream criterion concentration and flow; 2) modeled; or 3) reference conditions.

Once determined, the load capacity is divided up or allocated to sources. Allocations are required for each point source, categories of non-point sources, and must include a margin of safety, whose total will not exceed the load capacity. Allocations to non-point sources are termed load allocations, while point source allocations are termed wasteload allocations. Load allocations may be made by source type or land use (e.g roads, agriculture, forestry), or tributary watershed, or a combination. Each point source must have its own wasteload allocation. Minor non-point sources may receive a lumped allocation or a single 'gross allotment' may represent all non-point sources.

It is desirable to know the existing load as well. For waters not meeting criteria, the existing load must be greater than the load capacity at times. Determining the existing load provides information on how much over load there is, and allows expression of needed load reductions in terms of percent reduction from current conditions.

Analysis of pollutant loading will usually be performed at the scale of smaller watersheds (5th or 6th field hydrologic units) of listed streams within a subbasin. Generally a loading analysis is required for each pollutant of concern. But it is recognized that some listed pollutants are really responses to other pollutants. For example, habitat and dissolved oxygen (DO) are often listed as pollutants, but they are not pollutants, but rather the effect of other pollutants, e.g. sediment or decomposing organic matter. Addressing the response in a TMDL requires a loading analysis for the right causative pollutant.

This can get complicated. In the case of DO, the organic matter which decomposes to deplete oxygen may be the result of too much aquatic plant growth, in turn caused by excess nutrients. And the cause and effect can be quite far removed from one another. It is the job of the TMDL analyst to determine such links between cause and effect and properly target the cause. Thus one listed pollutant may be addressed by a loading analysis of another, requiring one TMDL not two.

Although loading analysis may take place at finer scales, and address several pollutants, it is intended that documentation of these analyses will cover a subbasin at a time.

While loading analyses is fundamentally a quantitative assessment of pollutant loads, federal regulations allow that '*loads may be expressed as mass per unit time, toxicity, or* ***other appropriate measures****'* (40 CFR 130.2(I), emphasis added). The meaning of other appropriate measures is to date, not well known. It perhaps allows flexibility in the application of TMDLs to problems that are otherwise intractable, or provides the option for use of surrogate measures to address pollutants such as sediment and temperature.

Surrogate measures can be either measures of waterbody response or pollutant sources. They are practical measures used because they are more tangible or easier to quantify than instream concentrations or actual loads. Examples include percent shade instead of the thermal load for temperature, or perhaps percent depth fines as a measure of sediment load. There must be a relation between the surrogate and the pollutant for which a traditional mass per unit time load might be calculated. Most surrogates do not lend themselves to allocation, and are thus coupled to adaptive management in which regular future monitoring feeds back into adjustment to pollutant source control. The DEQ believes use of surrogate measures can be most helpful in implementation of TMDLs for non-point sources.

In many cases, less data will be available than may be considered optimal for loading analysis. This can not delay TMDL development. In his September 26, 1996 ruling, Judge Dwyer made it clear that '*lack of precise information must not be a pretext for delay.'* (see *Idaho Sportsman's Coalition v. Browner*, Case No. C93-943WD, WD Wash.). Federal regulations also acknowledge that *'load allocations are best estimates of the loading, which*

may vary from reasonably accurate estimates ***to gross allotments'*** (40 CFR 130.2(g) emphasis added).

Gross allotments seem most appropriate to non-point sources where little information exists. Accurate and precise load estimation and the definition of the source area is far more complex for non-point sources than for point sources. The differences in control costs and water quality benefits should be weighed and may not justify the effort needed for estimates better that 'gross allotments'. The guiding principal should be 'Will a more accurate load estimate provide for better control actions, more equitable allocation of responsibility for load reduction and quicker improvement in water quality?'

Idaho's short TMDL development schedule and the regulatory allowances emphasized above point to phased TMDLs. In a phased TMDL much is yet unknown and the initial loading analysis may be very inexact with a large margin of safety to account for uncertainty. The initial phase focuses on what is known and load reductions move toward the eventual goal (by targeting more obvious source problems earlier in the implementation plan). Essential to a phased approach is inclusion of a plan to gather the data needed to refine load estimates and their allocation.

The EPA recognizes any TMDL can be revised at any time following due process, and that phased TMDLs will be the rule rather than the exception when dealing with non-point sources. The expectation is that rough load estimates will be counterbalanced by a greater commitment to future monitoring designed to better those estimates.

A complete loading analysis lays out a general pollution control strategy and an expected time frame in which water quality standards will be met. For narrative criteria, e.g. sediment and nutrient, the ultimate measure of attainment of Idaho's water quality standards is full support of beneficial uses. Idaho DEQ uses rapid bio-assessment techniques and has adopted a waterbody assessment process for determining beneficial use support taking into account biological, chemical and physical data. The DEQ will use its waterbody assessment process to ultimately determine when narrative criteria are being met. Long recovery periods (greater than ten years) are expected for TMDLs dealing with non-point sources, especially for sediment and temperature.

Implementation Plans

While it is recognized that TMDL implementation is essential to water quality improvement, it is not currently part of a TMDL submitted for EPA approval. An implementation plan is a separate document, guided by an approved TMDL, which provides details of the actions needed to achieve load reductions, a schedule of those actions, and specifies monitoring needed to document action and progress toward meeting water quality standards. The state has

committed itself to developing implementation plans within 18 months of TMDL approval. Important elements of these plans are:

- Pollutant control actions are based on the load allocations in the TMDL
- Sets a time by which water quality standards are expected to be met, including interim goals or milestones as deemed appropriate
- Schedules the what, where, and when of actions that are to take place
- Identifies who will be responsible for undertaking planned actions
- Specifies how completion of actions will be tracked
- Includes a follow-up monitoring plan to address data gaps, and how data will be evaluated and used to recommend revisions to the TMDL
- Describes monitoring to document attainment of water quality standards, including evaluation and reporting of results

Where long recovery times are expected it is recommended that interim water quality targets be established. Interim targets allow finer tunning of mid-course corrections in actions particularly relevant to non-point source controls. Surrogate measures may be employed, commonly for narrative criteria. Surrogates are a characteristic of a water, its biota, or environs related to or affected by pollutant loads, but not something which is directly discharged or could be allocated to sources. Use of surrogates often provide the link to beneficial uses and they are employed to more easily gage the progress of implementation. For example, pool volume may be a surrogate for sediment loading which more directly expresses the affect of increased sediment on fish and more visibly responds to sediment load reductions.

There may be more than one implementation plan which cover different water quality limited waterbodies within a subbasin. An implementation plan (or plans) is expected to be completed and on file at DEQ within 18 months of EPA approval of a TMDL.

Implementation plans will be cooperatively developed by DEQ, the WAG, if one exists, and 'designated agencies' (see page 6). Specific control actions will be those recommended by the WAG. These plans will be reviewed by the WAG and BAG, and subject to DEQ approval that they will lead to meeting state water quality standards. DEQ will be a repository for approved implementation plans and will incorporate them into Idaho's water quality management plan.

Workplans and Critical Milestones

Workplans will be developed which identify the principal author and a time line with dates for the following critical milestones:

- Draft Subbasin Assessment prepared by DEQ
- Subbasin Assessment presented to WAG or BAG
- Instream water quality targets determined
- Draft Loading Analysis ready for review
- Proposed load allocations presented to WAG or BAG
- Completed Draft TMDL ready for formal public comment
- Final TMDL ready for submittal to the EPA

Total maximum daily loads should be initiated by a workplan. The workplan, and any subsequent revisions will be on file with the DEQ TMDL coordinator. These workplans will be made available to the interested public, particularly BAGs, WAGs and designated agencies assisting in TMDL development. To allow sufficient time for public comment and response prior to submittal, the time line should provide for a completed draft TMDL ready for public comment by September 1st of the year of completion.

Phased TMDLs and Implementation Ramp

A phased approach is typically needed when nonpoint sources are a large part of the pollutant load, information is limited, or narrative criteria are being interpreted. Under these circumstances, common among Idaho TMDLs, there is often great uncertainty in the load capacity and a large margin of safety is used to assure meeting Idaho water quality standards. Consequently, there is great uncertainty in load allocation.

This calls for a “ramping up” of implementation in which the more obvious sources of load reduction are scheduled for action first, with increasingly difficult and less cost effective load reductions scheduled later. Essential to this strategy is gathering of information which will allow refinement of the loading analysis and will document whether restoration of beneficial uses occurs earlier than first thought.

The TMDL can be revised upon new data which indicate a revision in the loading capacity (better knowledge of relation between loading and water quality), or deviation from anticipated load reductions. These revisions may be up or down, resulting in less or more control actions needed than originally determined. In theory, great initial uncertainty and a corresponding large margin of safety results in an initial load capacity conservative on the side of assuring water quality.

Assistance of Other Agencies

The DEQ welcomes the assistance of other agencies, or private organizations, with the resources and interest in TMDL development. We recognize that many others hold information and expertise important to TMDL development and encourages those entities to work with DEQ. Furthermore, DEQ believes outside assistance will be essential to the development of sound implementation plans and practical actions needed to restore beneficial uses in impaired waters. As the lead agency in TMDL development, DEQ lists the following requirements for assistance:

- Must be willing to meet Idaho's schedule for TMDL completion.
- Efforts must be coordinated with DEQ and products are subject to review and acceptance by DEQ.
- Content must follow format set by DEQ (e.g Suggested TMDL Outline).
- The appropriate BAG and, if applicable, the WAG will be informed of such cooperative arrangements.
- Cooperators must have the expertise and resources to follow through.

In most subbasins DEQ will do the water quality assessment and look to other entities to assist in the loading analysis and especially implementation. Exceptions may occur in subbasins or smaller watersheds where land management agencies or other groups are responsible for more than 75% of the land. The Forest Service, for example, may want to develop TMDLs for watersheds they largely manage. But only DEQ can submit TMDLs for Idaho waters to EPA for approval.

Public Involvement and Comment

Idaho Code section 39-3611 states that TMDLs shall be developed in accordance with section 39-3614 (duties of the basin advisory group), section 39-3616 (duties of each watershed advisory group) and the federal Clean Water Act. Idaho Code section 39-3612 states that after a TMDL is completed the Director shall, subject to the provisions of Idaho Code section 67-5200, adopt the processes as part of the state's water quality management plan pursuant to the federal Clean Water Act. Federal regulations act also require public participation in Clean Water Act decisions (40 CFR Part 25)

BAGS are to review the development and implementation of the TMDL processes.

WAGs are to develop and recommend actions needed to effectively control sources of pollution. In doing so, the WAGs and the Director are to employ all means of public involvement deemed necessary

or required under Idaho Code section 67-5200 and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies.

In meeting these various requirements, DEQ will seek public involvement as follows:

Drafts of the subbasin assessment and loading analysis will be presented to the WAG representing the geographic area covered. If no WAG exists, the applicable BAG will review these draft documents. Water quality targets and proposed load allocations will be shared with these groups prior to incorporation in a draft report. All WAG and BAG meetings are open to the public.

DEQ will publish notice in newspapers covering the TMDL geographic area advertising a thirty (30) day period for interested persons to review the draft TMDL and present comments to DEQ. If no WAG is involved in the development of the TMDL, DEQ will hold a public information meeting early in the comment period. The notice should be published with enough lead time to reasonably advise the public of the meeting. The notice should also provide where the public may obtain a copy of the draft TMDL prior to the meeting and a contact person for questions and to receive comments on the draft TMDL. At the meeting, DEQ should present information on how the TMDL was developed, how implementation will be planned and answer questions from the public, as well as take written comments.

If a WAG is involved in the development of the TMDL, a public meeting is not necessary but the thirty (30) day public comment period is still required. Public comments will be considered in preparing the final draft to be submitted to EPA.

The final TMDL document will have a section discussing public participation which will describe the WAG and BAG involved, attendance, and meeting dates. This section of the document will also have a copy of the public notice and the dates and newspapers in which it ran.

DEQ will prepare a summary of public comments received. This summary should consist of a list of those who commented, a compilation of comments into major points, and DEQ's response to each point. This responsiveness document will be part of the TMDL submittal package but not a part of the TMDL document.

Required Elements of Submittal

Idaho's DEQ must submit TMDLs developed pursuant to 303(d)(1) to the Environmental Protection Agency (EPA). They are required by law to review and consider approval of these TMDLs within 30 days of submittal. A proper TMDL submittal package consists of at least the following items:

1) A transmittal letter:

This submittal letter must state the included document is to be considered as a TMDL, which §303(d) listed waterbodies are addressed, the geographical area covered, and the responsible contact person.

2) Subbasin assessment:

A subbasin assessment can be a separate document, but will generally be combined with a loading analysis. Based on best available information, a subbasin assessment describes the affected area, the water quality concerns and status of beneficial uses of individual water bodies, nature and location of pollution sources, and a summary of past and ongoing pollution control activities.

If a subbasin assessment finds that beneficial uses are met and developing a TMDL is not needed, it should be organized to end with a summary of the status of beneficial uses. Such a document is not subject to EPA approval but will be provided to EPA to apprise them of the rationale for not developing a TMDL. Because of the import of such conclusions and to the extent interim revisions to the current 303(d) list are being made, formal public review is still necessary.

3) Loading analysis

This may or may not be a second separate document, but it builds upon the subbasin assessment and is thus generally combined with it. The loading analysis presents the rationale and selection of instream water quality targets, a determination of the loading capacity for each water quality limited waterbody, an estimate of the current loads, and an allocation of loads or load reductions among sources of a pollutant. The load capacity is the level of pollutant loading expected to meet water quality criteria and thus restore beneficial uses to full support. A loading analysis is pollutant specific, but a single loading analysis might address more than one listed pollutant.

4) Public Comments and Response

Each TMDL document will go out for formal 30 day public comment as described more fully under public involvement and comment earlier in this policy statement. The package submitted to the EPA will include a summary of public comments received and DEQ's response to those comments.

The submittal package is due to the EPA on or before December 31st of the year the TMDL is scheduled. With several TMDLs due in any given year it is desirable to stagger delivery dates. Without staggered delivery dates review times are likely to lengthen.

Specific Position Statements

Three Step Process

It is the intent of the DEQ that the TMDL process be divided into three distinct steps. These steps are 1) subbasin assessment, 2) loading analysis, and 3) implementation plan. This separation is taken for several practical reasons.

By addressing all water quality limited waterbodies on the current §303(d) list in a given subbasin at once an economy of scale in document preparation and review is sought. Furthermore, it is believed such aggregation will often reflect similarities in water quality problems, pollutant sources, and available information that will facilitate timely assessment. Making subbasin assessment the first step allows distinction of waterbodies which are truly water quality limited from those which are documented to be meeting water quality standards. To the extent possible, the subbasin assessment also identifies which pollutants are truly factors in causing impairment of beneficial uses, and the sources of those pollutants. In this way subsequent loading analysis is better defined.

A loading analysis needed only for those waterbodies and their watersheds which are documented in the subbasin assessment to be water quality limited, and only for those pollutants causing impairment. In addition to a loading capacity and allocations, a loading analysis sets out a general pollution control strategy and an expected time line for meeting water quality standards. The combination of subbasin assessment and loading analysis constitute the TMDL as required under §303(d) of the Clean Water Act.

Implementation plans are an essential third step in the process of restoring beneficial uses and assuring compliance with water quality criteria. They are not part of a TMDL submitted to EPA. These plans lay out a schedule of specific actions to be undertaken. They are to be developed within 18 months of EPA approval of a TMDL, and in accordance with the water quality goals and load allocations provided in a TMDL. Monitoring to ascertain achievement of water quality goals will be an essential part of implementation plans. Instream monitoring and assessment of water quality is the responsibility of DEQ. Monitoring the implementation and effectiveness of specific source control actions is the responsibility of designated state agencies as defined in IDAPA 16.01.02.003.23.

Dynamic Nature of Water Quality Assessments

Because of possible mistakes in Idaho's §303(d) list, ongoing availability of more current water quality data, and evolving water quality sources and controls, it is expected that subbasin assessments will differ from the §303(d) list. On one hand, listed waters may be found to support beneficial uses, or listed pollutants may be found to not be causing violation of water quality standards. In such cases a loading analysis would not be required for the water or pollutant listed in error.

On the other hand, it is also expected that waters or pollutants not currently listed may be identified in the subbasin assessment as not meeting Idaho's water quality standards. Consideration of new waters versus new pollutants presents two different situations.

Take the case of a waterbody which is on the list. If a pollutant is identified as causing water quality impairment, but that pollutant is not listed, a loading analysis will be developed for that currently unlisted pollutant.

Now consider waterbodies which are not listed. If a currently unlisted water is identified as water quality limited in the assessment, the facts will be presented but no loading analysis will be performed. Simply identifying these new waters provides notice of impairment without preempting the normal 303(d) listing process and may allow time for voluntary actions prior to the next §303(d) list.

De-listing of Waterbodies Supporting Beneficial Uses

EPA guidance allows that §303(d) lists are dynamic and that the need for changes may arise between normal listing cycles. It is the position of the DEQ that load allocations are developed only for waters or portions of waters documented to be water quality limited during the subbasin assessment step of TMDL development. But federal regulations require TMDLs be developed based on the current list.

Therefore section §303(d) listed waters, or portions thereof, which are shown to be meeting their beneficial uses must de-listed or appropriate boundary changes made on or before TMDL submittal, or non-submittal as the case may be. To handle this situation DEQ will propose such modifications to the list concurrent with public review of the TMDL, or subbasin assessment if such changes result in no TMDL. When done concurrently, it will be clearly stated in the public notice that the public comment period is for review of both the proposed TMDL or subbasin assessment and any proposed changes to the §303(d) list identified in the subbasin assessment.

Multiple Stressors

Stressors is a general term for pollutants and other factors which can affect beneficial uses. Total maximum daily loads will address all §303(d) listed stressors that are confirmed to be causative factors in water quality impairment for a particular waterbody. To the greatest extent possible, the DEQ will use its staff expertise and available information to economize by addressing multiple related stressors with allocation of one stressor. In some waters both a causative factor and its water quality effect are listed, e.g. nutrients & dissolved oxygen (DO) or sediment & habitat modification. Where the subbasin assessment demonstrates this link, the loading analysis will be developed for the cause and not the effect.

Factors Other Than Pollutants

It is Idaho DEQ's position that habitat modification and flow alteration, while they may adversely affect beneficial uses, are not suitable for development of TMDLs per §303(d) of the Clean Water Act. There are no Idaho water quality criteria for habitat or flow, nor are they suitable for estimation of load capacity or load allocations. In addition, jurisdiction over stream flow is not the purview of DEQ. Because of these practical limitations, TMDLs will not be developed to address habitat modification or flow alteration.

For many of the water quality limited waters on Idaho's §303(d) list this will have little effect. This is because concerns which resulted in a listing for habitat modification are often reflected in other listed *pollutants*—sediment or temperature, for example. In this case, actions taken to address sediment or temperature are likely to improve habitat as well. For flow alteration, other management alternatives, outside the TMDL process, will likely be needed.

Applicability of Other Water Quality Projects

Much good work has already been done or is underway in Idaho to improve water quality. This work includes many projects under the Non-point Source Program, State Agricultural Water Quality Program, Clean Lakes Program, Superfund/RCRA cleanup plans, storm water control, federal watershed analyses, Cumulative Watershed Effects analysis (CWE) and others. The DEQ intends to build on these earlier efforts, which in some cases may largely meet the requirements of a TMDL. But it is expected that the many of these other efforts will assist more in implementation of TMDLs than their development.

Coordination With Bull Trout Plans

The development of TMDLs in Idaho will be closely coordinated with the preparation of bull trout key watershed plans. Where bull trout occur, the TMDL process will incorporate the

work of bull trout recovery efforts and great care should be taken to avoid contradictions in findings or duplication of effort. However, the issues involved in bull trout conservation will often go beyond concerns about water quality addressed by a TMDL and will be addressed outside of the TMDL.

Best Available Information

In the development of TMDLs, every effort will be made to obtain all information pertinent to subbasin assessment and loading analysis within the time constraints of an eight-year schedule. At the outset of the process for a particular subbasin, a letter will go out to all known potential sources of data. This letter will request specific existing information be provided by a certain date.

Gathering of new information specific to the development of a particular TMDL will be limited by time and money. None-the-less it is desirable to devise plans and seek opportunities to address data gaps prior to and beyond TMDL submittal. Additional data gathering will be an integral part of the implementing a TMDL, and specific monitoring details will be incorporated into implementation plans.

For 1994/1996 listed waters, if sufficient data are not obtained, within the time specified, to resolve the beneficial use status of waterbodies in the "needs verification" category, such waterbodies will be included in the loading analysis as if they were not full support.

Loading estimates will be the best that the methods, time, and data available allow. It is likely that in many cases this will result in use of simple methods, such as export coefficients, and gross allotments for loads. The DEQ will not delay for the anticipated delivery of better data if doing so would jeopardize meeting the schedule for TMDL development. Such additional data would be used for future refinements of loads and implementation schedules following EPA approval of the TMDL.

Reasonable Assurance

EPA coined the phrase reasonable assurance in its April 1991 guidance document on TMDLs: *Guidance for Water Quality-based Decisions: The TMDL Process.* Reasonable assurance applies only to situations in which load reductions necessary to meet the load capacity for a particular pollutant are split among both point and non-point sources. The Clean Water Act provides for certain control, though enforcement, of point sources, but leaves non-point source control to states through largely incentive based mechanisms. Therefore EPA feels assured point source load reductions will happen, and are inclined, in mixed source situations, to require

all necessary reduction in a pollutants load come from the point sources alone, unless there are reasonable assurances that the non-point sources reduction will indeed be achieved.

While not a regulatory requirement, EPA region 10 considers lack of reasonable assurance, where applicable, to be grounds for disapproval of a TMDL. Idaho has an EPA approved Nonpoint Source Management Plan which includes certification by the attorney general that adequate authorities exist to implement the plan. Idaho's water quality rules (IDAPA 16.01.02.350) states that current best management practices will be evaluated and modified by the appropriate designated agencies if found to be inadequate to protect water quality. In addition, if necessary, injunctive or other judicial relief may be sought against the operator of a nonpoint source activity in accordance with the DEQ Director's authorities provided by Idaho Code 39-108. The DEQ believes these provide all the assurance that is reasonable and necessary for any mixed source TMDL.

Pollutant Trading

The DEQ supports and encourages pollutant trading. Pollutant trading allows for exchange in pollutant reduction responsibilities or allocations identified in the TMDL. Through trading one party pays another to further reduce their reduction of a specific pollutant in exchange for a lessening in their own reductions, in essence buying a larger piece of a water's load capacity for their waste discharge. Clear and precise rules need to be set up and agreed to by all parties to the trading, including DEQ and EPA. Once in place, these rules allow the 'free market' to operate in achieving more cost effective pollutant reductions. Trading will be particularly important in watersheds with a mix of point and non-point sources of the same pollutant.

Glossary

Allocation - a portion of the loading capacity given to a particular source. Point source allocations are termed **wasteloads**. Every point source must have a wasteload allocation. Non-point source allocations are simply called **loads**. Because of the diffuse nature of non-point sources, loads are typically allocated to particular areas, such as sub-watersheds, or types of activities, such as agriculture or forestry, or a combination.

Loading capacity - the greatest amount of pollutant loading a water can receive without violating water quality standards

Load allocation (LA) - the portion of a receiving water's loading capacity that is attributed either to one of its existing or future non-point sources of pollution or to natural background.

Margin of safety (MOS) - this is a portion of the loading capacity not allocated to pollutant sources so as to account for uncertainty in the relation of loading capacity to water quality standards. A margin of safety is used to assure water quality standards will be met even when loading capacity is not well known.

Subbasin - One of 84 pre-delineated watersheds encompassing the State of Idaho. Subbasins correspond to fourth field hydrologic units as published by the USGS.

Target - a measurable quality of water or stream condition which forms the basis for load capacity. Targets arise from water quality criteria in Idaho's Water Quality Standards and Wastewater Treatment Requirements (IDAPA 16.01.02). Where these criteria are numeric the target is merely the established numeric criterion for the pollutant of concern. When only narrative criteria exist for a pollutant, e.g. sediment or nutrients, a site specific interpretation of the criteria is required.

Total maximum daily load (TMDL) - simply the sum of the individual wasteload allocations (WLAs), load allocations (LAs), natural background, and a margin of safety (MOS); TMDL = LC = WLA + LA + MOS. In practice a TMDL includes documentation of the analysis which leads to the numbers.

Wasteload allocation (WLA) - the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution.

Water quality limited - denotes a stream or other waterbody not meeting state Water Quality Standards. For purposes of Clean Water Act listing these are waters that will not meet standards even with application of required effluent limitations.

Attachment A - Idaho's Eight (8) Year TMDL Development Schedule

STATE OF IDAHO

Eight (8) Year TMDL Schedule

April 3, 1997

YEAR	DEQ Region	Subbasin Code (or Waterbody Name)
1997 (5, 38)	***Coeur d'Alene***	**SF Coeur d'Alene (14)** **Lake Coeur d'Alene (1)** **Spokane River(8)**
	Lewiston	**Paradise Creek (1)**
	Twin Falls	**Mid-Snake (14)**
1998 (6, 61)	***Boise***	**Lower Boise (11)** 17050121 (6) MF Payette
	Coeur d'Alene	*(working on subbasin assessments for subsequent TMDLs)*
	Idaho Falls	17040202 (2) Upper Henry's Fk 17060204 (14) Lemhi R
	Lewiston	Winchester Lake (1) *(working on subbasin assessments for subsequent TMDLs)*
	Pocatello	17040208 (27) Portneuf R
	Twin Falls	*(working on subbasin assessments for subsequent TMDLs)*
1999 (13, 143)	***Boise***	**Lower Payette (7)** 17050105-7 (9) Owyhee R
	Coeur d'Alene	**L. CDA River (10)** 17010214 (18) Pend Oreille L
	Idaho Falls	17040203-4 (13) Lower Henry's 17040217 (6) Little Lost R
	Lewiston	**Jim Ford Creek (1)** **Cottonwood Cr. (1)** 17060303 (26) Lochsa R
	Pocatello	17040207 (18) Blackfoot R
	Twin Falls	17040209 (3) Lake Walcott 17040212 (31) Upper Snake-Rock

YEAR	DEQ Region	Subbasin Code (or Waterbody Name)		
2000 (13, 157)	***Boise***	17050113 (18) SF Boise R	17060208 (21) SF Salmon R	17050111 (9) N&MF Boise R
	Coeur d'Alene	17010215 (10) Priest Lake	17010305 (8) Upper Spokane R	
	Idaho Falls	17040104 (5) Palisades	17060203 (7) Mid Salmon-Panther	17060207 (9) Mid Salmon -Chamberlin
	Lewiston	17060307 (19) Upper NF Clearwater	17060302 (13) Lower Selway R	
	Pocatello	16010102 (5) Central Bear	16010201 (17) Bear Lake	
	Twin Falls	17050102 (16) Bruneau R		
2001 (9, 130)	***Boise***	17050115 (1) Mid Snake-Payette	17050201 (8) Brownlee Reservoir	17050104 (10) Upper Owyhee R
	Coeur d'Alene	17010302 (14) SF Coeur d'Alene R		
	Idaho Falls	17060201 (14) Upper Salmon R	17060202 (6) Pahsimeroi R	
	Lewiston	17060305 (55) SF Clearwater R		
	Pocatello	16010202 (14) Middle Bear R		
	Twin Falls	17040219 (8) Big Wood R.		
2002 (10, 143)	***Boise***	17050103 (21) Middle Snake-Succor	17050120 (11) SF Payette	
	Coeur d'Alene	17010304 (45) St Joe R[2]		
	Idaho Falls	17040205 (21) Willow Ck	17040201 (1) Idaho Falls	
	Lewiston	17060304 (8) MF Clearwater R	17060308 (22) Lower NF Clearwater	
	Pocatello	16010204 (5) Lower Bear-Malad R		
	Twin Falls	17040210 (5) Raft R	17040211 (4) Goose Cr	

YEAR	DEQ Region	Subbasin Code (or Waterbody Name)		
2003 (9, 176)	***Boise***	17050123 (15) NF Payette	17050124 (12) Weiser R	
	Coeur d'Alene	17010301 (35) Upper Coeur d'Alene		
	Idaho Falls	17040218 (11) Big Lost R		
	Lewiston	17060108 (24) Palouse R	17060306 (58) Clearwater	
	Pocatello	17040206 (12) Am Falls Res		
	Twin Falls	17040220 (3) Camas Ck	17040221 (6) Little Wood R	
2004 (11, 83)	***Boise***	17050108 (11) Jordan Ck	17060210 (8) Little Salmon R	
	Coeur d'Alene	17010104 (9) Lower Kootenai R	17010213 (10) Lower Clark Fork	
	Idaho Falls	17040214 (4) Beaver-Camas Ck	17040215 (6) Medicine Lodge	17040216 (2) Birch Ck
	Lewiston	17060209 (23) Lower Salmon R		
	Pocatello	17040105 (1) Salt R.	16010203 (1) Little Bear-Logan	
	Twin Falls	17050101 (8) CJ Strike Reservoir		
2005 (7, 46)	***Boise***	17050112 (9) Boise-Mores Ck		
	Coeur d'Alene	17010105 (6) Moyie R	17010306 (3) Hangman Ck	
	Idaho Falls	17060205-6 (13) MF Salmon R		
	Lewiston	17060101 (5) Hells Canyon	17060103 (1) Lower Snake-Asotin	
	Pocatello	*(Will assist adjacent regions in development of TMDLs)*		
	Twin Falls	17040213 (9) Salmon Falls Cr		

EXPLANATORY NOTES

a) Named waterbody in bold denotes high priority TMDL identified in Idaho's 1996 § 303(d) list.

b) Eight digit code denotes subbasin (i.e. USGS Cataloging Unit).

c) Number in () following 8-digit subbasin code denotes # of segments in subbasin on 1996 § 303(d) list.

d) Pair of numbers below year indicates number of subbasin TMDLs scheduled for completion in that year followed by the total number of 303(d) listed segments addressed by those TMDLs.

e) Some large subbasin's (e.g. 17060306 Clearwater) may be split in two for TMDL development. These are not listed twice, but rather are listed only in the final year when the second TMDL for the subbasin is to be completed.

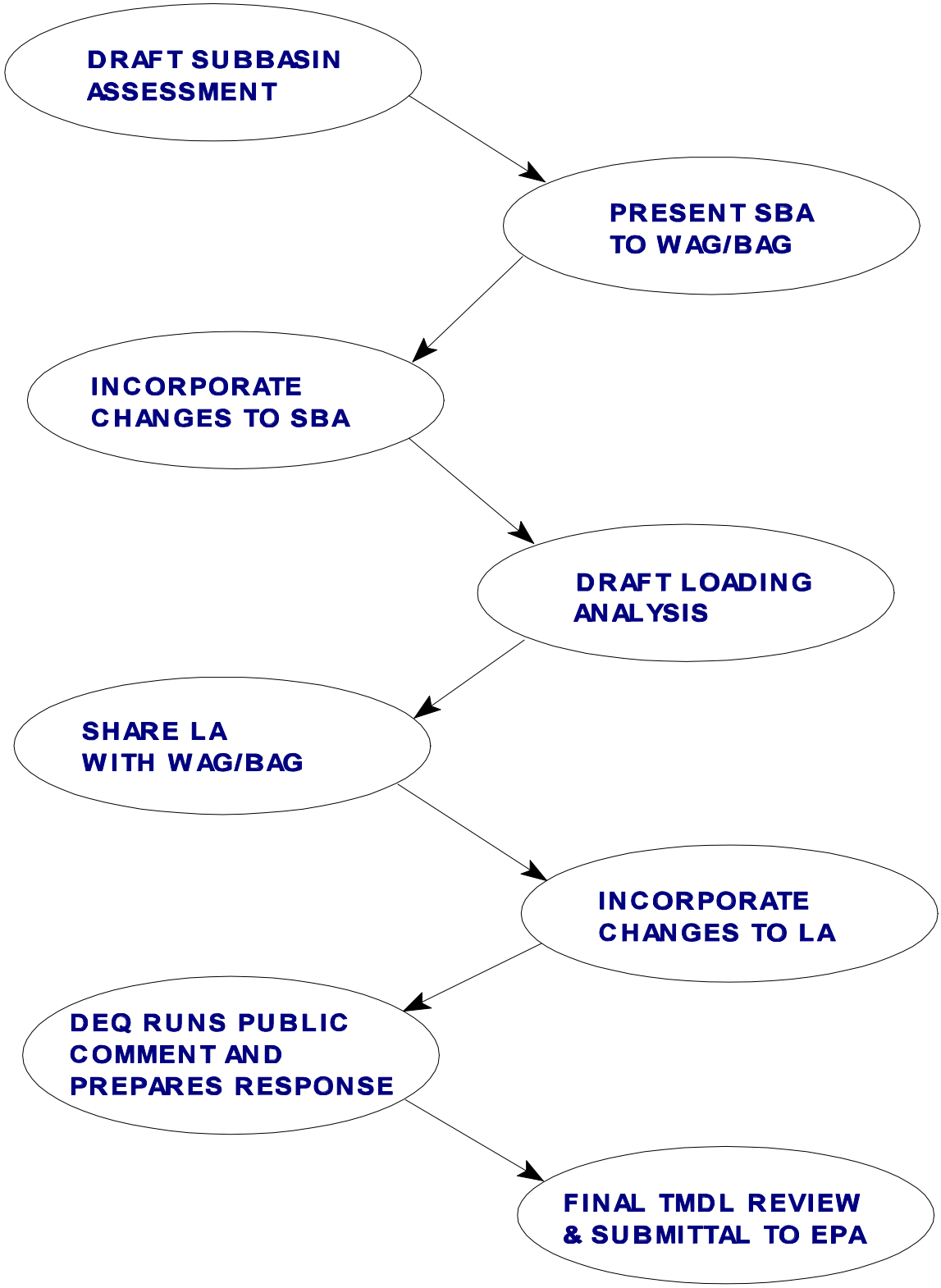
Endnotes:

1. The sequencing of TMDL development reflected in this Schedule is premised upon existing information, severity of pollution, existing resources, priorities established by Basin Advisory Groups and coordination with the activities of other state and federal agencies. The sequencing of TMDL development in Idaho's Schedule may change as additional information becomes available concerning impacts or potential impacts to beneficial uses within particular subbasins, as resources become available to complete development on TMDLs on a particular subbasin, or as priorities and activities of other state and federal agencies change.

   Any change in TMDL sequencing from this Schedule will not be made until DEQ receives recommendations from applicable Basin Advisory Groups concerning such change. Thereafter, DEQ will consult with EPA concerning such change and notify Plaintiffs, Intervenors and other interested parties concerning such change. Any change in sequencing of TMDL development will not affect the overall pace or the eight (8) year time to complete TMDLs in this Schedule.

2. The problem assessment for § 303(d) waters flowing into the St. Joe River upstream from the St. Maries River will be completed by 2000. The TMDL for the entire St. Joe River subbasin will be completed by 2002.

Attachment B - TMDL Development Process



A SUGGESTED TMDL

Outline

May 23, 1997

prepared by Don A. Essig

Water Quality Assessment and Standards Bureau
Idaho Division of Environmental Quality

Condensed TMDL Outline

1. Executive Summary

2. Subbasin Assessment

(Covers all listed pollutants, conducted at scale of 4th field HUC)

2.1 Characterization of Watershed

2.2 Water Quality Concerns & Status

2.3 Pollutant Source Inventory

2.4 Summary of Past and Present Pollution Control Efforts

3.0 TMDL - Loading Analysis and Allocation

(For each pollutant contributing to use impairment, conducted at 5th or 6th field watershed scale)

Loads may take non-traditional forms, such as miles of roads of a certain condition, and desired outcome may also take non-traditional form, such as number of active redds, residual pool volume, percent fine, et cetera. If non-traditional pollutant and water quality measures are used the relation of one to the other, and to existing water quality standards, must be clearly explained. Links between pollutants may be used but must be fully explained.

3.1 Instream Water Quality Target(s)

3.2 Load Capacity

3.3 Estimates of Existing Pollutant Loads

3.4 Load Allocation

4.0 References

2.1 Characterization of watershed

1. What are the physical and biological characteristics of the subbasin

2.2 Water Quality Concerns and Status

1. Which waterbodies in the subbasin are water quality limited?
2. What are their causes of impairment (ie. pollutants)?
3. What are their beneficial uses and relevant criteria in the Idaho standards?
4. What are the data on current and historic water quality and beneficial use status?
5. Which §303(d) listed waters are truly water quality limited and need a TMDL?
6. What are they key indicators of beneficial use impairment?
7. What gaps in data can be identified?

2.3 Pollutant Source Inventory

1. What and where are the major sources of pollutant in the subbasin?
2. Which subwatersheds likely produce the greatest loads?
3. How are different pollutants related, and how does land use or source type affect their quantity and behavior?
4. What is know about the delivery potential and variability of these sources?
5. What gaps in data can be identified?

2.4 Summary of Past and Present Pollution Control Efforts

1. What have been the pollution control efforts to date?
2. Are present and planned activities expected to achieve water quality standards in a reasonable time?
3. Why have efforts to date been in adequate?

3.1 Instream Water Quality Target(s)

1. What is the critical time period for use impairment?
2. What are the measurable endpoints of water quality restoration?
3. Where will the endpoints be monitored?

3.2 Load Capacity

1. What is the maximum loading of a pollutant which will allow a waterbody to meet water quality standards?
2. How does that capacity vary with season and location in the watershed?
3. What is the uncertainty in the loading capacity?

3.3 Estimates of Existing Pollutant Loads

1. How much greater than the loading capacity is the total existing load?
2. What portion of the existing load is natural or background?
3. What is the estimated contribution of each source to the total existing load?
4. How do these contributions vary with season and location in the watershed?
5. What is the uncertainty in the estimates of these loads?

3.4 Load Allocations

1. How much of the load capacity is reserved as a margin of safety?
2. How much of the load capacity is accounted for by background or other existing loads that will not be allocated an reduction?
3. How much will each source have to reduce its load in order to fit within the remaining load capacity?
4. When will these load reductions be met?

FRONT MATTER

Title Page

- **Subbasin Assessment and Total Maximum Daily Load for <Y*our Watershed*>**
- **Date**
- **Author(s)**

Table of Contents

- **for all front matter which follows, the body of report, and the back matter**

List of Figures

- **numbered consecutively in order of appearance, including any figures in appendices**

List of Tables

- **numbered consecutively in order of appearance, including any tables in appendices**

List of Appendices

- **in order of mention in text**

List of Abbreviations

Annotated TMDL Outline

1. EXECUTIVE SUMMARY

Suggested Detail:

1) Watershed at a glance:
   - Area and streams at question
   - Parameters of concern
   - Beneficial uses affected
   - Known sources

2) Key findings
   - Streams requiring TMDLs
   - Key indicators of impairment
   - Water quality targets
   - Major sources and load reductions needed
   - Time by which water quality standards will be met

2. SUBBASIN ASSESSMENT

2.1 Characterization of Watershed

2.1.1 Physical and Biological Characteristics

Narrative, maps, or tables describing location, drainage area, precipitation, runoff, topography, vegetation, soils, geology. Must have map(s) showing major drainages, watershed and sub-watershed boundaries, 303(d) streams, general location within state.

Suggested detail:

1) climate description of a representative station
   - precipitation- mean annual & seasonal distribution
   - temperature - monthly mean highs and lows, extreme highs
   - cloudiness - percent possible sunshine by month from nearest station

2) subbasin characteristics
   - hydrography (Map showing subbasin & sub-watershed boundaries, drainage network, location of weather and flow gaging stations)
   - geology and/or soils (dominate rock and soil types) - describe soil depth, texture, and erodibilty factor
   - topography - elevation, slope, and aspect
   - vegetation - distribution of existing land cover (minimum Anderson level 1)
   - fisheries - key Bull Trout Watersheds, distribution (known occurrence) of sensitive, threatened or endangered aquatic species

3) sub-watershed characteristics (5th field HUC)
   - watershed area (Table listing area and attributes by 5th field HUC)

watershed attributes (landform, dominate aspect, relief ratio, mean elevation, dominant slope, hydrologic regimes, annual or unit area runoff)
current mass wasting potential (e.g., landslide frequency)

4) stream characteristics
narrative description of valley & channel types (e.g., source, transport, and response segments, Rosgen channel types, gradients, width/depth ratios)
general bed sediment character (e.g., granitic parent material-sand size substrate)
riparian characteristic - floodplain width, riparian vegetation type & extent

2.1.2 Cultural Characteristics

Population, cities, counties, state, land ownership, land use, roads, dams, diversions, history. A map showing prominent cultural features would be useful.

Suggested detail:

1) land Use:
map or bar chart of different land uses (Anderson Level 1 or better)
trends in land use
map(s) showing location and types of roads

2) land ownership, cultural features, and population
map showing county boundaries, location of cities, major land ownership, and cultural features such as dams and major NPDES facilities
demographics - brief description of population distribution and trends

3) history and economics
principal economic activities, industries
dates of major water resource activities such as dams & diversions, NPDES facilities
existing local government & civic groups working on water quality issues

2.2 Water Quality Concerns & Status

2.2.1 Water Quality Limited Segments Occurring in the Subbasin

Waterbody name & id, boundaries of water quality limited segment, listed pollutants, when first listed, and source of data for listing. This is best be summarized in a table.

Suggested detail:

1) Narrative description of §303(d) listed segments

2) Map showing the location of listed segments

3) Table listing segments, water body ID, pollutants, etc...

2.2.2 Applicable Water Quality Standards

What are the designated and existing beneficial uses for waterbody and what water quality criteria (narrative & numeric) are relevant in each case?

Suggested detail:

1) Table listing beneficial uses by segment and relevant state criteria including any site specific criteria. Detailed citation of the standards should be left to an appendix.

2) Discuss any evaluation of appropriateness of designated uses or development of site specific criteria that may be pursued.

2.2.3 Summary & Analysis of Existing WQ Data

What water quality data exists, including bio-monitoring and particularly BURP results and what does this data say about beneficial use status and exceedance of criteria? All previously reported data should be cited, any new or previously unreported data should go into an appendix. Cover both listed and unlisted waters. Start with graphical analysis (time series, box plots) & keep statistics simple, medians and percentiles may be more appropriate than means and standard deviation. Look for any discernable trends in water quality or beneficial use status. Identify the key indicators, critical reaches and time periods for use impairment.

Suggested detail:

1) Table of data sources pertinent to subbasin assessment

2) Flow characteristics for a representative station or stations
   - average annual hydrograph (by month or better)
   - average and extreme base and peak flows & bankfull flows
   - any known long term flow trends (i.e., major floods, seasonal patterns, etc..)
   - average annual sediment yield (maybe a sed./discharge ratio)

3) Water column data
   - summarize existing water quality data (e.g., time series)
   - compare water quality data to criteria noting frequency and extent of criteria exceedance, by segment and use, as appropriate
   - are any trends in water quality or criteria exceedance evident

4) Other water quality data
   - summarize macroinvertebrate data (i.e., BURP), stream inventory data (e.g., BLM proper riparian functioning condition), fish counts (BURP or others), and other data as appropriate to pollutant(s) of concern

compare results to any published or other standards (e.g., Forest Plan standards)
are any trends evident

5) Status of Beneficial Uses
what does above data indicate about support status of beneficial uses when Water Body Assessment process is applied
how are beneficial uses being impaired (e.g. lack of overwintering habitat for trout)

6) Conclusions to be Drawn
identify time or times of critical flow for impaired uses
determine which listed streams are truly water quality limited and need a loading analysis
clarify boundaries or extent of water quality criteria exceedances or use impairment identify critical reaches, areas most sensitive to use impairment
identify key indicators of use impairment (e.g., relative volume of fine sediment in pools (V*))

2.2.4 Identify Any Data Gaps

where would additional monitoring clarify beneficial use support status, or better define extent or timing of water quality impairment

Suggested detail:
1) are there pollutants of concern for which data are insufficient to evaluate use impairment (e.g. bacteria and primary contact recreation)
2) is flow regime sufficiently know to quantify periods of critical flow
3) are there streams for which the beneficial use status is “needs verification”
4) where would additional sampling sites allow better resolution of extent of use impairment

2.3 Pollutant Source Inventory

2.3.1 Identify all Sources for Pollutant(s) of Concern

Provide an inventory of known or suspected sources of pollutant(s) including both point sources (type, location, pollutants discharged) and nonpoint sources (acres, location, pollutants yielded). Describe any relation(s) between different pollutants and what is known about the delivery potential to impaired segments of waterbodies. All previously reported data should be cited, any new or previously unreported data should go into an appendix.

Suggested detail:
1) Point Sources
description of any Superfund or RCRA sites
table showing NPDES permitted point sources (location, permit #, permit limits, discharge volume)

table of point sources covered by a general permit (location of each), and description of general permit requirements
list of any unpermitted point sources and what is known about them

2) Nonpoint Sources
table of land use acreage by sub-watershed (5th of 6th field HUC)
identify other sources such as roads, stream crossings, mining sites, etc.
identify natural processes which contribute pollutant loads (e.g. mass wasting)
narrative description of each category of nonpoint source

3) Pollutant Transport
what is known about the relative yield of pollutants from identified sources (by source type and/or subwatershed)
what is know about seasonal pollutant delivery from identified sources
describe relation(s) between pollutants specific to identified sources (i.e. physical or chemical associations)
discuss delivery potential to reaches most sensitive to impairment

2.3.2 Identify Any Data Gaps

where would additional data better define sources of pollution and facilitate later loading estimates

Suggested Detail:
1) Point Sources
are there pollutants of concern generated by existing point source but not currently monitored or for which better data is needed

2) Nonpoint Sources
where are greatest areas of uncertainty in pollution sources
where would more data on pollutant yield or more detailed breakdown of land use be of value

2.4 Summary of Past and Present Pollution Control Efforts

Evaluate successes and failures in pollution control to date. For water quality limited segments, why have efforts to date been inadequate? Are there actions planned which are expected to achieve water quality standards within a reasonable time?

Suggested detail:
1) history of issuance and revision to point source permits
2) other watershed improvement projects (public and private lands)
3) are ongoing activities expected to improve water quality in a reasonable time

3.0 TMDL - LOADING ANALYSIS AND ALLOCATION (For each pollutant)

Regulations allow that "Total maximum daily loads can be expressed in terms of either mass per unit time, toxicity, or other appropriate measures" 40 CFR 130.2(I). *Loads may take non-traditional forms, such as miles of roads of a certain condition, and desired outcome may also take non-traditional form, such as number of active redds, residual pool volume, percent fine, et cetera. If non-traditional pollutant and water quality measures are used the relation of one to the other, and to existing water quality standards, must be clearly explained. Links between pollutants may be used but must be fully explained.*

3.1 Instream Water Quality Target(s)

Goal is to restore "full support of designated beneficial uses" IC 39.3611, 3615

Select the measurable target(s) for instream water quality and loading analysis. This may involve translation of narrative water quality standards to measurable water quality targets. Be specific about beneficial uses protected, locations (waterbodies) where targets apply, and timeframe for reaching goal. If recovery time will be long it is best to specify interim goals.

Suggested Detail:

1) describe design condition(s) paying attention to critical time periods and reaches for impaired beneficial uses

2) target selection

A) Where numeric criteria exist numeric criteria must be met unless site specific criteria are considered

B) With narrative criteria it will be necessary to look to literature and apply local knowledge to come up with appropriate numeric surrogates, start with key indicator(s) identified in the subbasin assessment

identify possible targets levels for key indicator (e.g. if % bed fines is a key indicator what value is appropriate)
describe relation of considered targets to beneficial uses
look for a suitable reference stream and its value for the key indicator
consider surrogates for key indicator(s) taking into account cost & ease of monitoring and any relations between parameters documented in the subbasin assessment
clearly document rationale for target selection

In setting dates for target milestones try to account for lags in recovery and response to load reductions

3) identify monitoring point(s) (typically at downstream end of a listed segment but may be a critical reach further upstream), parameters to be monitored and methods. A detailed monitoring plan and feedback loop will follow from this in the implementation plan.

3.2 Load Capacity

Determine maximum load each waterbody can accommodate and still meet water quality standards. Must be at a level to meet " ... water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge ...", CWA §303(d)(C). *Likely sources of uncertainty include lack of knowledge of assimilative capacity, uncertain relation of selected target(s) to beneficial use(s), and variability in target measurement. The time period for which loading is calculated needs to be appropriate to the nature of the pollutant and use impairment, e.g. for the episodic discharge of sediment from nonpoint sources filling pools an annual average load is more appropriate than a daily load.*

Suggested detail:

1) summarize or reference the method(s) of estimation (put details in an appendix)

2) describe all assumptions made

3) discuss sources and degree of uncertainty in estimate

4) describe how load capacity changes with season (based on critical time periods for beneficial uses and flow regime described in subbasin assessment) and location in the waterbody

5) present load capacity for each parameter or related parameters with season and location of application

3.3 Estimates of Existing Pollutant Loads

Regulations allow that loadings "... may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading". 40 CFR 130.2(I). *An estimate must be made for each point source. Non-point sources are typically estimated based on type of source (land use) and area, such as subwatershed, but may be aggregated by type of source or land area. If possible, background loads should be distinguished from man-caused increases in nonpoint loads.*

Suggested detail:

1) summarize or reference the method(s) of estimation (put details in an appendix)

2) describe the data used and all assumptions made

3) discuss sources and degree of uncertainty in estimates

4) be sure to consider seasonal variation in loads characteristic of each source type

5) present loading rates for each parameter

What is background load and extent to which it is purely background or aggregated with other non-point loads. Remember 'background' is load which is not reducible.

Wasteloads are from point sources - summarized in table by source (location, type, load [annual range if known], NPDES permit #, etc.)

Loads are from non-point sources - summarized in a table by sub-basin and/or land use (location, type, load [annual range if possible], estimation method)

3.4 Load Allocation

The total allocations must include a margin of safety to take into account seasonal variability and uncertainty. Uncertainty arises in selection of water quality targets, load capacity and estimates of existing loads, and may be attributed to incomplete knowledge or understanding of system, assimilation not well known, lack of data, or variability in data. The margin of safety is effectively a reduction in loading capacity which 'comes off the top', i.e. before any allocation to sources. Second in line is the background load, a further reduction in loading capacity available for allocation. It is also prudent to allow for growth by reserving a portion of the remaining available load for future sources.

Apportion load capacity among existing and future pollutant sources. Allocations may take into account equitable cost, cost effectiveness, and credit for prior efforts but all within the ceiling of remaining available load. These allocations may take the form of percent reductions rather than actual loads. Each point source must receive an allocation. Non-point sources may be allocated by subwatershed, land use, responsibility for actions, or a combination. It is not necessary to allocate a reduction in load for all nonpoint sources so long as water quality targets can be met.

Suggested detail:

1) Margin of Safety
   summarize sources of uncertainty discussed in previous two sections
   describe any conservative assumptions in target selection or load estimation and use of critical design conditions that contribute to an implied margin of safety
   present any explicit margin of safety used

2) Background
   carry forward existing background load from section 3.3
   note inclusion of any unallocated nonpoint sources

3) Reserve
   discuss any allowance made for future growth, e.g. new or expanded point sources or expansion of nonpoint source activities

4) Apportion remaining available load, these are future loading targets, to the extent possible taking into account both spatial (location) and temporal (seasonal) distribution of sources

each point source must receive an allocation (a.k.a. Waste Load Allocation)
nonpoint sources can be allocated by subwatershed, land use category, responsibility for actions, or a combination (a.k.a. Load Allocation)
not all nonpoint sources need to be allocated as long as water quality targets can be met by reductions in those sources that do receive an allocation
allocations are best summarized in a table or tables
a time must be specified by which each (or all) allocations will be met
pollutant trading comes after allocations have been made

4.0 REFERENCES

Includes all literature cited in the main body of text or appendices

BACK MATTER

Appendices (these are where most of the supporting data goes, as well as model output, etc.)

Glossary

Chronology (perhaps, of significant events in TMDL development timeline)

Distribution list (who is supposed to receive a copy of this document)

Attachment D - Example Data Request Letter

January 1, 1998

Interested Party
Near a water quality limited stream
Anywhere, Idaho 88888

Dear Sir/Madam:

The Idaho Division of Environmental Quality (DEQ) is developing a total maximum daily load (TMDL) for the <Subbasin Name> subbasin (4th field Hydrologic Unit Number <8 digit code>). This TMDL is scheduled for submittal to the Environmental Protection Agency (EPA) by Dec. 31, <year due>.

Our first step in TMDL development is a subbasin assessment. This assessment will be used to develop a loading analysis. The contents of an assessment and loading analysis are described in the attached condensed TMDL outline.

To assist us in ensuring that its assessment and loading analysis are based on the best available information, we are soliciting information you may have on the <subbasin name> with regard to the following subject areas:

- Water Quality Concerns and Status
- Pollutant Sources
- Prior and Existing Pollution Control Efforts

Specifically the following types of information are requested:

- water column chemistry data;
- physical data - including thermograph, channel stability ratings, riparian proper functioning condition, etc.;
- bio-assessment data, particularly aquatic insect and fish sampling results;
- data on location, size, types of specific land uses such as timber harvests, croplands, grazing allotments, and other nonpoint sources of listed pollutants in the watersheds of the attached lists of streams;
- and documentation of previous, ongoing, and planned actions to control those sources of pollution and their effectiveness.

We request your reply by March 31st, <year before due>. The data requested should be no more than five years old, though older data may be useful if more recent data is unavailable. Data should be in summary form along with appropriate interpretations, and data should be provided in a computer readable format with the format specified in a cover letter (e.g. Lotus ver 5, d-Base for Windows, Word Perfect 6.1). Please send your pertinent data to <regional office contact> at <OR address> along with the name or names or persons that can answer questions about the data provided.

If you have questions about the types of data requested, think other data may be relevant, or have general questions about the TMDL development process please contact Davy Crocket, 208-yyy-xxxx.

Sincerely,

Davy Crocket
DEQ TMDL Developer

Attachment E - Example TMDL Workplan

This example skeleton workplan is for a subbasin of medium complexity and assumes a January 1 start two years before the TMDL is due. Greater detail is encouraged on a project specific basis. The workplan will need to be compressed if the start has been delayed. Simpler subbasins could be completed in less time and more complicated subbasins may take longer to complete. For complex subbasins an earlier start will be required.

1. **Jan 1 to Mar 31 - Scoping, including request of data and information from agencies and industry for the subbasin**

2. **Apr 1 to Jun 30 - Prepare draft Subbasin Assessment (SBA)**

3. **July - Present draft SBA to WAG or BAG and take comments**

4. **Aug and Sep - Consider WAG/BAG comments and revise SBA**

5. **Sep 30 - Revised draft SBA ready**

6. **Oct 1 to Oct 15 - SBA technical edit**

7. **Oct 15 - SBA complete**

8. **Oct 16 to Oct 30 - Select water quality targets**

9. **Nov 1 to Feb 28 - Prepare drafts loading analysis (LA)**

10. **Mar - Present draft LA to WAG or BAG**

11. **Apr to Jun - Consider WAG/BAG comments and revise LA**

12. **Jun 30 - Revised draft LA ready**

13. **Jul 1 to Jul 15 - Combine SBA and LA and prepare executive summary**

14. **Jul 16 to Jul 31 - Draft TMDL technical edit and legal review**

15. **Aug 1 to Aug 15 - Prepare Draft TMDL for public comment**

16. **Aug 16 to Sep 15 - Public comment period (30 days)**

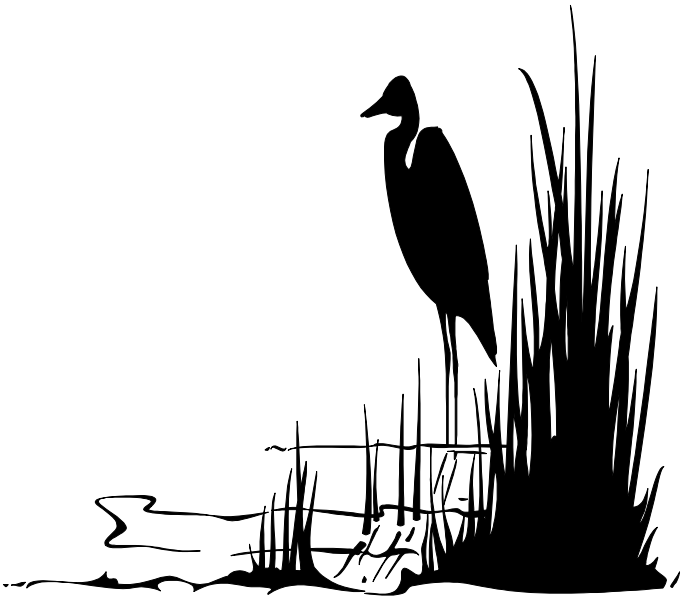
17. **Sep 16 to Oct 15 - Prepare public comment response summary and submittal package**

18. **Oct 16 to Nov 14 - Final legal/administrative review**

19. **Nov 15 - Final TMDL package ready to be submitted**.

APPENDIX D.
"DRAFT" OVERVIEW FOR THE IMPLEMENTATION OF NONPOINT SOURCE TMDLs

FINAL DRAFT



OVERVIEW FOR THE IMPLEMENTATION OF NONPOINT SOURCE TMDLs

August 1999

IDAHO DIVISION OF ENVIRONMENTAL QUALITY
Water Quality & Remediation Division
Watershed & Aquifer Protection Bureau
1410 North Hilton **e** Boise, Idaho 83706

Table of Contents

1 PURPOSE

This document describes the necessary elements of a Total Maximum Daily Load (TMDL) and the subsequent implementation plan to address nonpoint source (NPS) pollution. This document is written for those who will be involved in preparing and implementing TMDLs. The reader is assumed to have a basic understanding of water quality issues and watershed management principles.

To be acceptable, a TMDL must be a thorough, objective-driven, long-term watershed enhancement plan with significant commitment demonstrated by local land owners and managers. Most importantly, the goals and objectives of the implementation plan must focus on achieving water quality standards and full beneficial use attainment at the earliest possible date.

This document is meant to outline the TMDL development and implementation processes and cannot describe the many and varied issues and technical methods related to overall watershed management practices.

Watershed plans can take many forms. The elements described in this document can be included in any watershed plan, regardless of its particular format. Similarly, the specific management practices and objectives of each watershed plan will be selected to suit the local situation. This document does not recommend management practices or objectives, but describes the necessary elements in a TMDL and implementation plan.

2 TMDLs, IMPLEMENTATION PLANS, WATER QUALITY LIMITED WATERS, AND THE §303(d) LIST

A TMDL is a water quality based loading goal for bringing a water body back into compliance with water quality standards and for improving water quality to the point where designated beneficial uses are fully supported. The implementation plan addresses pollution problems by systematically identifying those problems, linking them to watershed characteristics and management practices, and establishing objectives for water quality improvement. An implementation plan puts a TMDL into practice by identifying and implementing best management practices (BMPs) designed to achieve the targets outlined in the TMDL and restore the impaired beneficial uses.

The Clean Water Act requires states to routinely develop a list of water bodies that cannot meet water quality standards without the application of additional pollution controls. These waters are referred to as “water quality limited” and must be periodically identified in each state by the Environmental Protection Agency (EPA) or by the state agency designated with this responsibility. In Idaho, this responsibility rests with the Division of Environmental Quality (DEQ). Water quality limited water bodies requiring the application of TMDLs are identified in a document commonly referred to as the "§303(d) list.” This list, developed by DEQ, is subject to public review and approval by EPA.

The §303(d) list is really a sub-set of the larger list of "water quality limited" water bodies. The §303(d) list consists of only those water quality limited water bodies which (a) do not, or will not, meet state water quality standards even with application of technology based controls (point sources) and required best management practices (non-point sources), and (b) do not yet have an approved TMDL. Water bodies on the mend, those for which implementation of an approved TMDL or other required pollution controls are

expected to lead to attainment of water quality standards, may still be water quality limited for a while, but will not be §303(d) listed. Other water quality limited water bodies are identified in DEQ's biennial Water Quality Status Assessment (§305(b)) report to EPA. In essence, TMDLs are the backstop to address water quality impairment that remains despite application of all existing federal, state, and locally required pollution controls.

The TMDL development process determines the pollutants or stressors causing water quality impairments, and identifies maximum permissible loading capacities for the water body in question. More complex and lengthy processes may be required where the contributions are from both point sources (e.g., sewage treatment plants, industrial facilities) and nonpoint sources (e.g., forestry, agriculture, grazing, and untreated urban storm water runoff). Where only nonpoint sources are involved, the TMDL development process may be less complex, although a thorough understanding of the watershed and its water quality is necessary in either case.

A TMDL should address whole watershed units whenever possible. A "watershed" is simply an area of land within which all surface runoff drains to a single receiving water body. Therefore, one or more TMDLs may be required within a basin. This philosophy of addressing whole watershed units is also consistent with the goals of the President's Clean Water Action Plan which was published in February 1998.

Nonpoint source pollutants are substances of widespread origin which run off, wash off, or seep through the ground, eventually entering surface or ground water. Pollutant loads for nonpoint sources are typically set for geographic units (watersheds) or categories of nonpoint source (background, forestry, agriculture, etc.).

3 BASIC ELEMENTS OF A TMDL

A TMDL is a three step process and includes:

STEP One—Subbasin Assessment

1. Subbasin Assessment or Problem Description
2. Water Quality Concerns and Status
3. Source Identification
4. Summary of Existing Pollution Controls
5. Public Involvement

STEP TWO—Loading Analysis

1. Water Quality Goals
2. Load Capacity
3. Margin of Safety
4. Load Allocations
5. Public Involvement

STEP THREE—Implementation Plan

1. Proposed Management Measures
2. Timeline for Implementation
3. Identification of Responsible Participants
4. Discussion of Costs and Funding
5. Maintenance of Effort Over Time
6. Monitoring and Evaluation
7. Public Involvement

Many of the requirements for TMDL elements are included in a guidance document entitled Evidence For Development of Total Maximum Daily Loads (June, 1999), Guidance For Water Quality-based Decisions: The TMDL Process (April, 1991), and in a document entitled EPA Program Guidance on the TMDL Concept (1994). This document is written to primarily focus on the characteristics of the implementation plan, Step Three in the three step process for water quality management through TMDLs. However, a brief description of steps one

and two is included in this document for clarity.

Step One: Subbasin Assessment or Problem Description

A subbasin assessment and problem description is required and should specify the following:

1. The water quality standards and criteria of concern, including the impaired beneficial uses;

- Which waterbodies in the subbasin are water quality limited?
- What are the causes of the impairment (ie. pollutants)?
- What are their beneficial uses and relevant criteria in the Idaho Standards?
- What are the data on current and historic water quality and beneficial use status?

2. Water quality conditions;

- What §303(d) listed waters are truly water quality limited and need a TMDL?
- What are the key indicators of beneficial use impairment?
- What gaps in the data can be identified?

3. The sources of pollution; and

- What and where are the major sources of pollutants in the subbasin?
- Which watersheds likely produce the greatest loads?
- How are different pollutants related, and how does land use or source type affect their quantity and behavior?
- What is known about the delivery potential and variability of these sources?
- What gaps in the data can be identified?

4. Summary of past and present control efforts

- What have been the pollution control efforts to date?
- Are present and planned activities expected to achieve water quality standards in a reasonable time?
- Why have efforts to date been inadequate?

Step Two: Loading Analysis

The TMDL should, whenever possible, address the entire watershed, be based on the best available data, and on an understanding of the problems to be solved and underlying causes. Information on water quality conditions from DEQ's Beneficial Use Reconnaissance Project (BURP) is available from DEQ. Other sources of information may include public agencies, watershed councils, special districts, and a variety of local sources. To some extent, the types and sources of pollution causing the problem may be inferred from the nature of the problem and from local land use patterns and management practices. However, it will be necessary to document watershed conditions and water quality problems.

Short-cutting the assessment phase tends to reduce the opportunity for local stakeholders to examine and understand the issues. However, spending too much time and effort on the assessment phase can delay and draw resources away from implementation of the TMDL.

Documenting the factors in a watershed that influence water quality is difficult, in part due to natural variability. Therefore, TMDLs must accommodate some degree of uncertainty. The Code of Federal Section 40 Part 130.7(c) requires that TMDLs provide a "margin of safety." The greater the uncertainty in the watershed, the greater the margin of safety.

Overall, the purpose of a TMDL is to employ the best information available at the time to reduce pollution, improve water quality, and support beneficial uses. The point is not to exhaustively study natural systems. The subbasin assessment and problem description element of a TMDL will be adequate if it can describe problems sufficiently to justify the proposed objectives and actions.

The water quality target stated in the TMDL should be accompanied by objectives which quantify the desired change in water quality, beneficial use support, pollution loading, and/or other measurable indicators of stream or watershed conditions. In addition, the TMDL assigns load reductions to sources, and provides a target date for achievement of the goals and objectives.

Goals or targets included in TMDLs are general statements of intent, policy, and desired outcomes. Loads are specific, quantified statements of products to be created or conditions to be attained. The achievement of loads is always measurable and should identify the following criteria:

1. Instream water quality targets;
- What is the critical time period for use impairment?
- Where will the load be monitored?

2. Load Capacity;
- What is the maximum loading of a pollutant which will allow the waterbody to meet water quality standards?

3. Estimates of Existing Pollutant Loads; and
- How much greater than the loading capacity is the total existing load?
- What portion of the existing load is natural or background?
- What is the estimated contribution of each source to the existing load?
- How do these contributions vary with season and location in the watershed?
- What is the uncertainty in the estimates of these loads?

4. Load Allocation
- How much of the load capacity is reserved as a margin of safety?

- How much will each source have to reduce its load in order to fit within the remaining load capacity?
- When will these load reductions be met?

The targets and loads are essential because they are the basis for detailed implementation work plans and for the evaluation of program effectiveness.

Beneficial use support and compliance with state water quality standards are the ultimate measures of success for a TMDL and the implementation plan. Other aspects of watershed conditions such as erosion, riparian and upland vegetation, shade cover, and stream channel morphology often are quite useful in the short run as indicators of trends that will lead to water quality improvements. It is also useful to track the implementation and maintenance of the program.

It is critical that the targets and loads:
- Adequately address water quality issues, with the appropriate margin of safety;
- Be realistic and achievable;
- Be measurable; and
- Be matched to the findings in the subbasin assessment and problem statement.

A TMDL may include short and long-term targets. For example, if sediment reduction is a goal of the

TMDL, the short-term target in the implementation plan might include changing management practices in the riparian zone to protect and perhaps to reintroduce beneficial vegetation. Intermediate-range targets might include road culvert replacement, and long-term targets might include road reconstruction, relocation, or abandonment. DEQ recommends that the implementation plan include milestones with interim or mid-term targets designed to mark progress toward the long-term load reduction and ultimate goal of restoration of designated beneficial uses. For further information on TMDL development see A Suggested TMDL Outline (DEQ, 1997) and the guidance Evidence For Development of Total Maximum Daily Loads (DEQ, 1999).

Step Three: Implementation Plan

Proposed Management Actions

The implementation plan identifies and describes the specific pollution controls or management measures to be undertaken, the mechanisms by which the selected pollution control and management measures will be put into action, and describes the authorities, regulations, permits, contracts, commitments, or other evidence sufficient to ensure that implementation will take place. The plan also describes when implementation will take place, identifies when various tasks or action items will begin and end, when mid-term and final objectives will be met, and establishes dates for meeting water quality targets.

Application of effective BMPs is crucial to achieving the pollutant load reductions and targets of the TMDL. Consequently, the implementation plan, to the extent practicable, must be explicit about which BMPs or systems of BMPs will be employed to achieve the targets, where and when the BMPs will be employed, and how application of the BMPs will achieve the stated targets. EPA guidance specifically identifies several criteria by which BMPs will be judged:

- A data-based analysis showing that the selected BMPs have been demonstrated to be effective in addressing the issue or pollutant in question (i.e., a history of successful application in similar situations);
- An explanation of the mechanisms by which application of the BMPs will be assured; and
- A plan for tracking the implementation and effectiveness of the BMPs.

The DEQ and the other designated natural resource agencies will use these criteria in evaluating the likelihood that selected BMPs will achieve the targets and load reductions specified in the TMDL. The selection of BMPs may be very site-specific, and may change over time in response to changing conditions, opportunities, land manager preferences, and lessons learned. To the extent that BMPs can be anticipated to change over time, the TMDL implementation plan must describe the decision making process by which future BMPs will be selected, how effectiveness monitoring and other inputs will factor into the selection, and how interested stakeholders will be involved in the decisions. Effective TMDL implementation plans generally are designed to be flexible and adaptable over time. Therefore, it may be most appropriate to include detailed descriptions of the BMPs in an addendum.

Timeline for Implementation

Implementation plans are to be developed within 18 months of EPA approval of the TMDL and in accordance with the water quality goals provided in a TMDL package. Each associated implementation work plan should contain a timeline

with dates for starting and completing the work, and appropriate milestones for interim products. The discussion of midterm reviews and effectiveness evaluations is particularly important. Pursuit of TMDL targets and application of the BMPs may take years, perhaps decades. It may also be desirable to break implementation of the plan into logically sequenced phases.

Implementation will be unique in each watershed, but two general guidelines apply:

- Address the causes of problems rather, then remediate the symptoms or effects; and
- Work from the top of the watershed on down (e.g., upstream before downstream, tributaries before the main stem).

However, adhering rigidly to these first two guidelines can slow down implementation unnecessarily, so also keep the next two guidelines in mind:

- Implementation may be faster and more efficient if measures are applied simultaneously across a whole watershed or if measures are implemented at selected sites throughout the watershed in a carefully considered and coordinated way; and
- Where irreplaceable resources such as threatened or endangered aquatic species are at immediate risk, the implementation plan should move as quickly as possible to enhance critical water quality conditions.

Identification of Participants

The implementation plan must identify the roles, responsibilities, and commitments of the various public and private participants. This will be achieved largely through the description of the objectives within an implementation plan. However, other more general commitments from supporters may be worth indicating. For example, certain entities may commit resources to monitoring, public information sharing, technical assistance, and administrative oversight.

Discussion of Costs and Funding

Each TMDL must estimate the costs associated with plan implementation. An implementation plan with no funding will result in little or no action. The plan should identify potential sources of funding, the mechanisms by which those sources will be tapped, and who will conduct the fund raising effort. Funds may come from any public or private source, and will include the investments made by loans, the landowners themselves, grants, cost-share funds, in-kind contributions, and donations. The plan should explore the potential to raise funds both outside and inside the watershed. Chapter Four of the Idaho Nonpoint Source Management Program (1999) includes a listing of local, state, and federal programs which may provide funding or other resources to help with nonpoint source implementation efforts.

Maintenance of Effort Over Time

It is important for the stakeholders to demonstrate an ongoing commitment to long-range implementation. This commitment to ongoing implementation should also be reflected in a number of the plan elements. These elements could include long-term conservation agreements, maintenance contracts, long-term conservation easements, modifications or revisions to existing land use plans, revisions to or new land use ordinances to name but a few. It is beyond the scope of this document to describe how each individual plan will accomplish this task.

In most cases, the problems leading to water quality limitations and §303(d) listing have accumulated over many decades, and may require a number of years to remedy. Some management actions can produce measurable, even visible results within a year or two. However, it may take many years to implement the type of wide scale treatments often necessary to improve water quality throughout a watershed. Additional years of continued effort and maintenance may be necessary before the practices have their desired effect of achieving and maintaining water quality standards and full beneficial use support.

Monitoring and Evaluation

Monitoring for implementation and effectiveness of the TMDL should be guided by the targets and load allocations of the TMDL and should track implementation of the selected pollution control measures, collect and analyze information on the effectiveness of the specific measures at achieving the water quality goals, and provide a "feedback" or "adaptive management process. The types of monitoring which may be needed include chemical, biological, and physical parameters depending on the watershed in question. The watershed advisory group implementing the TMDL should work closely with the designated agencies to ensure that monitoring efforts within the watershed are not duplicated. Certain agencies, such as DEQ, have monitoring responsibilities (e.g., the DEQ Beneficial Use Reconnaissance Project).

Effectiveness monitoring should evaluate the results of implementing various management approaches and document long range water quality improvements and beneficial use support trends. EPA guidance defines an adequate monitoring plan as tracking:

- Implementation of BMPs;
- Water quality improvements; and
- Progress toward meeting water quality standards.

In a phased TMDL adequate monitoring also provides specific data needed to refine and improve initial loading capacity and allocations.

A high degree of commitment to ongoing monitoring of project effectiveness is an important element of the implementation plan. DEQ's Beneficial Use Reconnaissance Project systematically reviews the beneficial use status of Idaho's water ways. This along with site specific BMP effectiveness data collected by the designated agencies as listed in Idaho Code §39-3601 et. seq. for each NPS category will substantially cover the implementation monitoring needs of the state.

It is very important to use the monitoring results in a well thought out feedback loop process to evaluate the effectiveness of the actions and to improve the TMDL and implementation plan. Dates for interim program review must be built into the implementation timetable. Similarly, the monitoring plan must include at least a brief discussion of how and by whom the collected data will be analyzed and how the results will be used to make and incorporate revisions in the TMDL.

Public Involvement

Each watershed will have a unique set of interested and affected persons with a stake in developing and implementing the TMDL. The public must be involved in all steps of TMDL development, but are most heavily involved in implementation. Ideally, those who will be most closely involved in implementation should be involved in development of the implementation plan. The point is to seek as much public and private support for the implementation plan as possible in order to maximize its likelihood of success. Interested

stakeholders may include local land owners, other residents of the watershed, local governments, special districts, state and federal agencies, natural resource stewardship groups with local interests, and others. It is important to note that in addition to those who manage land in the watershed there are other people who will be affected by the TMDL and who will have an active interest in the aquatic resources being treated. Many of these people may have important contributions to make to the successful implementation of the plan.

Many private land owners and managers are understandably reluctant to have other people become involved in their private management decisions, but such interference is not the point of a TMDL or implementation plan. Rather than offering up every private land management plan for review, the emphasis instead should be on a general understanding of the condition of the watershed, what needs to be done within each land use type on an area-wide basis, and how everyone in the watershed can work together in a mutually supportive way, recognizing that surface waters of the state are public resources of concern to all. Although specific management measures for the watershed must be identified in the TMDL implementation plan, there is no requirement that they be approved by any public process.

To address these concerns Idaho adopted the Water Quality Law (Idaho Code §39-3601 et. seq.) to provide direction for local watershed planning and management. Under the law, appointed community-based Basin Advisory Groups, recommend water quality objectives to the DEQ concerning monitoring, designated beneficial use status revisions, prioritization of impaired waterbodies, and solicitation of public input. Local stakeholder based Watershed Advisory Groups are appointed by DEQ with advice from the appropriate Basin Advisory Group. Watershed Advisory Groups advise DEQ on the development and implementation of TMDLs so that within a reasonable period of time beneficial uses are fully supported.

By its very nature, nonpoint source pollution is diffuse and may not be easily characterized. Therefore, as the watershed advisory group meets to begin the development of the implementation plan the watershed advisory group must carefully analyze the group of BMPs necessary to restore beneficial uses. However, the listing of BMPs should be broad enough to allow the individual cooperators within the basin the flexibility to choose BMPs which will complement their operations while helping to restore beneficial uses. The watershed advisory groups will need to work closely with each of the designated agencies and local organizations to ensure that the developed plan can and will be implemented.

4 EXISTING WATERSHED MANAGEMENT EFFORTS WHICH MAY CONTRIBUTE TO A TMDL

Many existing watershed management efforts already include a number of the essential elements of a TMDL. In some cases, it will require only a minor adjustment or expansion of these management plans for them to qualify as an implementation plan. In other cases, existing watershed management plans and projects which lack several key elements still can serve as the basis for a TMDL or implementation plan. Any watershed based natural resource management program with the appropriate water quality objectives can provide the basis for a TMDL if it:

- Has a basic goal to meet or exceed water

quality;

- Fully describes and adequately addresses specific water quality issues (ie., identifies pollutants, loading, etc.);
- Includes an action plan with quantifiable and measurable loads;
- Is developed and implemented with the involvement and leadership of local stakeholders; and
- Is adequately monitored and adjusted over time as indicated by the monitoring results.

Watershed management efforts resulting from the existing programs, such as the Clean Lakes Phase I, Clean Water Act §208 plans, Habitat Conservation Plans, Bull trout Conservation Plans, etc. may contribute significantly to TMDLs. The reader should keep in mind that federal and state programs vary considerably in their nature and scope, and that the site-specific plans resulting from any one of these programs also may vary. However, a review and understanding of existing plans could greatly decrease the time necessary to develop and implement a TMDL.

5 SUMMARY—PROCESS FOR DEVELOPMENT, IMPLEMENTATION, REVIEW, AND APPROVAL OF NPS TMDLs

Development

Total maximum daily loads may be developed by many different groups and organizations, in many different ways, and may even be developed by individual landowners in cases where those landowners manage large areas of land encompassing whole watersheds. In most cases, however, a partnership of watershed stakeholders will form to assist DEQ in producing TMDLs as outlined in this document. Even if a governmental agency provides administrative leadership for the TMDL development, success depends on the representation and effectiveness of the local partnerships.

Federal law requires that the waterbodies on the §303(d) list be prioritized. The higher up on the priority list a water body is after prioritization, the more urgent it is for the development of a TMDL. To the extent that public agencies are limited in their ability to address waterbodies on the §303(d) list, they will generally focus their limited resources first on the higher priority waterbodies. However, motivated watershed stewards are encouraged to address water quality problems on any water body on the list as soon as possible, regardless of how it may be prioritized.

Review and Approval

Review and approval processes for TMDLs have undergone a number of changes over the years and may change again in the future in response to the changing roles and relationships between various federal and state agencies. In general, the following holds true:

- DEQ writes the TMDL;
- DEQ initiates a formal public review of the TMDL as required under the Clean Water Act; and
- DEQ submits proposed TMDLs to EPA for final approval. Federal law requires that EPA be the agency to approve all TMDLs. At this point, the CWA requires EPA to approve or reject a proposed TMDL within 30 days of its submittal.
- Implementation plan developed no later that 18 months after the TMDL has been approved as indicated in the *State of Idaho* Evidence for Development of Total Maximum Daily Loads.

Proposed TMDLs, whether new plans tailored specifically to the elements described herein or modifications of preexisting plans, will be evaluated using the criteria presented in the *State of Idaho* Evidence for Development of Total Maximum Daily Load.

Implementation

As a result of existing programs or mandates, certain agencies and organizations are particularly likely to take the lead on TMDL implementation. Idaho Code §39-3601 et. seq. specifies certain entities as the designated agencies for various land use activities. These include the Department of Lands for timber harvest and mining activities, the Soil Conservation Commission for grazing and agricultural activities, the Department of Transportation for public road construction, the Department of Agriculture for aquiculture, and DEQ for all other activities. These designated agencies are expected to take the lead in identifying and selecting BMPs used to reduce non-point source pollution, and leading implementation for their activity. Likely federal agencies include the Forest Service, Bureau of Land Management, Fish and Wildlife Service, and Natural Resources Conservation Service. Local organizations may include cities and counties, soil and water conservation districts, and other groups.

6 REMOVING OR DELISTING WATERS FROM THE §303(d) LIST

Why Bother to Delist?

The waterbodies on the §303(d) list have suspected or documented water quality problems. Federal and state laws require the protection of beneficial uses and the development of a TMDL for all listed waterbodies. Removing water quality limited waters from the §303(d) list or delisting as TMDLs are developed, or as information is gathered to demonstrate water quality standards are met allows the natural resource agencies, basin advisory groups, watershed advisory groups, etc. to focus limited technical and financial resources on the waterbodies truly needing restoration.

DEQ believes that the best solutions to water quality problems are those with broad and active local support and involvement. Citizens throughout Idaho are anxious to proceed and in some cases are proceeding with ambitious watershed enhancement projects. However, in those areas with listed waterbodies where an effective local commitment to water quality improvement is slow to form, it will be necessary for DEQ (or other agencies) to move ahead with actions to implement the law and protect water quality. Failing to proceed in a timely manner could result in another §303(d) lawsuit with further court action resulting in TMDLs being developed and imposed with even less local involvement and support. The best way to avoid this situation is for local stakeholders and government agencies to join in partnership to address water quality problems and thus remove water bodies from the §303(d) list as soon as possible.

Delisting Water bodies from The §303(d) List

There are several ways that water bodies may be removed from the §303(d) list:

- The data or analysis used to list the water is shown to be inaccurate or inadequate (i.e., the water body in question actually does meet standards);
- The water quality standard violated by the water body is changed so that the water body no longer is in violation. This includes the

possibility that local conditions may be officially recognized as the local standard (e.g., allowing a higher stream temperature in a particular water body in recognition of "natural" conditions), or a change in use designation;

- Water quality improves to meet standards;
- TMDL is approved. However, this doesn't imply that all beneficial use are met only that the TMDL has been developed as required in the Clean water Act; or

- Other pollution control requirements (e.g., stemming from agriculture, forestry management programs, etc.) are determined to be sufficiently stringent to lead to water quality standards being met prior to the next listing cycle.

It is the policy of DEQ that load allocations are developed only for watersheds documented to be water quality limited during the subbasin assessment step of the TMDL development. Section 303(d) listed water bodies which are shown to be meeting their beneficial uses or those with recently developed and approved TMDLs will be proposed for de-listing.

7 RE-LISTING WATER BODIES

Water bodies that have been removed from the §303(d) list may be re-listed at any time if DEQ determines the effectiveness of the TMDL is below the level necessary to make adequate progress toward achieving water quality standards. The most likely reasons for re-listing are:

- Water quality standards are not met;
- Inadequate implementation of the selected BMPs;
- Implementation lags considerably behind schedule;
- The monitoring plan is not carried out; or
- The selected BMPs prove to be ineffective and are not revised.

Failure to implement the TMDL may be due to lack of technical assistance, funding, political support, land manager support, or to delays brought on by other natural causes. Obstacles to implementation should be identified and special efforts made to eliminate them in a constructive and cooperative manner before the water body is re-listed.

The effectiveness and adequacy of the applied BMPs will be revealed through the results of the monitoring. In general, several cycles of data collection may be necessary to evaluate effectiveness. The onset of desired improvements in water quality and beneficial use support may lag behind the implementation of BMPs. Therefore, the continuation of water quality problems for several years after initiation of the TMDL is not in itself reason to re-list the water body. The important thing is that the TMDL be implemented actively and in good faith, and that the monitoring results show that the plan, or an improved version of the plan, will achieve water quality goals and objectives.

All the water bodies on the State of Idaho 1996 §303(d) list must be addressed in TMDLs by the year 2005. Within this time frame, the state and federal agencies with jurisdiction will begin to take charge of the TMDL programs for those water bodies where plan development and/or implementation have been too slow or have been unsuccessful. The DEQ will make every effort to provide leadership to local interests and to emphasize cooperative and incentive-based approaches, but will also move the process forward at a rapid pace. Ultimately, if voluntary implementation has failed, management measures to protect water quality will be enforced using the authorities provided in federal and state law.

8 CONCLUSIONS

The task of developing and implementing TMDLs for listed water bodies throughout the State of Idaho is challenging. The DEQ encourages individuals from all natural resource agencies, private enterprise, and the public-at-large, to participate in the development of each TMDL and subsequent TMDL implementation plan. Without the full support of all stakeholders, the DEQ's goal to "*preserve the quality of Idaho's air, land, and water for use, and enjoyment today and in the future*" cannot be obtained. For further information on this process, call, fax, or write the DEQ at 208/373-0502, fax 208-373-0576, or 1410 N. Hilton, Boise Idaho 83706.

9 REFERENCES

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Appendix E.

AGRICULTURAL TMDL
ACTION PLAN
May 31,1999

Goal:

Develop and implement agricultural portions of TMDL watershed plans in an equitable manner proportional to the problem, in order to achieve water quality standards and enhance beneficial uses.

Objective 1:

Develop, refine and implement agricultural TMDL process.

Action Items:

1. Assist other agencies with understanding the overall TMDL effort as a dynamic process.
   Responsibility; EPA and DEQ
   Target Date: Immediately/Ongoing

2. Review Report of the Federal Advisory Committee on the Total Maximum Daily Load (TMDL) Program.
   Responsibility: Agricultural TMDL Technical Committee
   Target Date: July 1, 1999

3. Evaluate EPA response and adoption of Federal Advisory Committee's recommendations.
   Responsibility: Agricultural TMDL Technical Committee
   Target Date:

4. Provide feedback to EPA and DEQ with regard to future changes in TMDL process.
   Responsibility: Agricultural TMDL Technical Committee
   Target Date: Ongoing

5. Follow all TMDL outlines and guidance provided by the Governor's Office, DEQ and EPA.
   Responsibility: Agricultural TMDL Technical Committee
   Target Date: Immediately/Ongoing

Objective 2:

Accelerate TMDL training and outreach.

Action Items:

1 . Emphasize TMDL training to local SCDs, working groups, industry groups, city and county units of government and WAGs.
   Responsibility: Training and Outreach Sub-Committee

Target Date: Immediately

2. Accelerate the dissemination of TMDL information and education to agricultural landowners and general public.
   Responsibility: SCC, U of 1, and SCI)s
   Target Date: January 1, 2000

3. Continue providing training to staffs of involved technical agencies. Responsibility: Training and Outreach Technical Committee
   Target Date: Ongoing

4. Develop and distribute an electronic newsletter to provide TMDL information and education.
   Responsibility: Training and Outreach Technical Committee
   Target Date: Starting July 20, 1999

5. Accelerate the distribution of TMDL information and education through the use of local and topic specific workshops.
   Responsibility: Training and Outreach Technical Committee
   Target Date: Starting fall 1999

6. Develop hard copy TMDL educational publications.
   Responsibility: Training and Outreach Technical Committee
   Target Date: Ongoing

Objective 3:

Facilitate TMDL development and implementation through enhanced interagency coordination and communication efforts.

Action Items:

1. Use Coordinated Resource Management Process (CRMP) to ensure complete TMDLs and comprehensive watershed management plans for watersheds with mixed federal, state and private ownerships as appropriate. (See CRM handbook).
   Responsibility: All core agencies
   Target Date: Per TMDL schedule

2. Establish and maintain effective communication linkages between all agricultural agencies, industry organizations, SCDs, individual farmers and ranchers to provide a unified voice for agriculture in the TMDL process.
   Responsibility: SCC
   Target Date: Immediately

3. Provide forum for upper management within respective agencies to form an executive level, interagency, TMDL leadership committee.
   Responsibility: Agricultural TMDL Technical Committee
   Target Date: Immediately

Objective 4:

Ensure Effective TMDL Implementation

Action Items:

1. Continue providing technical assistance to SCI)s in gathering and providing information to DEQ for development of subbasin assessments and TMDLs
   Responsibility: SCC
   Target Date: In accordance with TMDL schedule

2. Continue providing assistance to SCI)s with review and comment on subbasin assessments and TMDLs.
   Responsibility: SCC
   Target Date: Based on completion by DEQ

3. Initiate agricultural TMDL actions as per Idaho's TMDL schedule.
   Responsibility: Agricultural agencies
   Target Date: Immediately

4. Work with local SCDs, WAGs, local working groups, DEQ regional offices and NRCS field offices to identify surface and groundwater priorities for implementation.
   Responsibility: SCC, NRCS
   Target Date: Immediately

5. Develop program neutral agricultural TMDL implementation plans based on local priorities for Paradise Creek, Lower Boise River, Mid Snake River, Winchester Lake, and Portneuf River.
   Responsibility: SCC
   Target Date: Immediately

6. Initiate and provide leadership for coordination and completion of the Agricultural TMDL Implementation Scoping Process.
   Responsibility: SCC
   Target Date: Immediately

7. Develop rules for implementation of Senate Bill 1135 (New Cost-share program to replace SAWQP).
   Responsibility: SCC and all other state and federal agencies.
   Target Date: July 1, 1999

8. Ensure program integration for successful TMDL implementation.
   Responsibility: SCC and all other state and federal agencies.
   Target Date: Immediately

9. Integrate and capitalize on the "Idaho One Plan process as it is developed.
   Responsibility: SCC, NRCS and other agencies as appropriate
   Target Date: July 1, 1999

10. Implement BMPs for surface and groundwater in accordance with the Agricultural

Pollution Abatement Plan.
Responsibility: SCC
Target Date:

Objective 5:

Intensify focus on riparian issues involved with TMDL implementation.

Action Items:

1. Provide leadership for developing a statewide strategy to address riparian issues related to TMDL implementation.
   Responsibility: SCC and partners
   Target Date: Immediately

2. Initiate interagency coordination efforts in order to address riparian issues related to TMDL implementation on private, state, and agricultural and grazing lands.
   Responsibility: SCC and partners
   Target Date: Immediately

3. Initiate and complete riparian assessments and inventories as part of the TMDL scoping process according to the TMDL schedule.
   Responsibility: SCC and partners
   Target Date: Ongoing

4. Provide leadership and technical support for riparian and management workshops for landowners.
   Responsibility: CES, SCC, NRCS, IDA, IDL, BLM and USFS
   Target Date: Salmon
   Challis
   Dubois
   Blackfoot

5. Provide riparian inventory and assessment training to agency technical staff.
   Responsibility: SCC
   Target Date: Immediately

6. Provide "Proper Functioning Condition" training workshops.
   Responsibility: BLM, SCC and NRCS
   Target Date: Mackay 6/30 - 7/1
   St. Anthony 7/28 - 7/29
   Boise 8/18 - 8/19
   Lewiston 9/15 - 9/16

7. Evaluate the use of surrogates for use in the TMDL process.
   Responsibility: SCC and DEQ
   Target Date: Ongoing

8. Develop minimum standards for assessment and monitoring techniques.

Responsibility: SCC and NRCS
Target Date: July 21, 1999

Objective 6.

Agricultural Watershed Source and BMP Effectiveness Monitoring.

Action Items:

1. Create an Agricultural TMDL Implementation Assessment Monitoring Program Guidance Document.
   Responsibility: ISDA, SCC and IASCD
   Target Date: Immediately

2. Determine SCD monitoring needs related to Agricultural Watershed Source and BMP Effectiveness Monitoring associated with 303(d) listed watersheds.
   Responsibility: ISDA, SCC and IASCD
   Target Date: Immediately

3. Develop BMP Effectiveness Monitoring Protocols for NRCS Component Practice Standards.
   Responsibility: ISDA, SCC and IASCD
   Target Date: Immediately

4. Develop research needs associated with BMP Effectiveness Protocols for NRCS Component Practice Standards.
   Responsibility: ISDA, SCC, UI-CES, NRCS
   Target Date: Beginning immediately and proceeding over the next two years

5. Plan and implement Agricultural Watershed Source and BMP Effectiveness Monitoring associated with 303(d) listed watersheds.
   Responsibility: ISDA, IASCD, SCDs, SCC
   Target Date: Immediately and Ongoing

6. Develop database for monitoring program.
   Responsibility: ISDA, IASCD, SCDs, SCC
   Target Date: Immediately and Ongoing

7. Utilize program data in TMDL implementation plans.
   Responsibility: ISDA, IASCD, SCDs, SCC
   Target Date: Immediately and Ongoing

8. Develop monitoring outreach program.
   Responsibility: ISDA, IASCD, SCDs, SCC
   Target Date: Immediately and Ongoing

- Agricultural TMDL Technical Committee is co-chaired by the Idaho Soil Conservation

Commission and Natural Resources Conservation Service.

- The committee is comprised of the following core agencies and organizations:
  - Idaho Soil Conservation Commission
  - Idaho Association of Soil Conservation Districts
  - Idaho Department of Agriculture
  - University of Idaho Extension System
  - Farm Services Agency
  - Idaho Department of Lands
  - Natural Resources Conservation Service

- Other participating entities are listed as follows:
  - Idaho Division of Environmental Quality
  - Idaho Department of Water Resources
  - Idaho Department of Fish and Game
  - US Bureau of Reclamation
  - US Bureau of Land Management
  - US Geological Society
  - US Environmental Protection Agency
  - US Forest Service

- Training and Outreach Sub-Committee members include:
  - University of Idaho Cooperative Extension Service
  - Idaho Association of Soil Conservation Districts
  - Idaho Soil Conservation Commission
  - Idaho Department of Agriculture
  - Idaho Division of Environmental Quality
  - Natural Resources Conservation Service

APPENDIX F - 1
DEQ NONPOINT SOURCE MANAGEMENT PROGRAM PROJECT TECHNICAL EVALUATION

PROJECT NAME:_____

SECTION I - All statewide initiative or regional on-the-ground implementation projects must provide information to insure that each of the following requirements has been satisfactorily addressed before the project can be considered for ranking in section II. If the answer to any of the following questions is "NO" then the project is not eligible for further funding considerations. Questions E, F, and G in section I do not apply to proposed statewide projects.

A) National EPA Guidelines - The project meets national EPA Nonpoint Source Management Program guidance.

_____Yes _____No

B) State Nonpoint Source Management Plan - The project is consistent with the current State Nonpoint Source Management Plan.

_____Yes _____No

C) Project Type - The project type deals with either a statewide initiative or a regional on-the-ground implementation project.

_____Yes _____No

D) Project Commitment - Matching fund availability is documented by the project applicant for all tasks and letters of commitment provided. Program match is calculated as: **Match = (Federal Dollars divided by 0.6) minus (Federal Dollars)**. The document must include the source(s) of match funds and letters of commitment to spending on the proposed project (e.g., project time line).

_____Yes _____No

E) Project Implementation Plan (work plan) - The work plan provides detailed documentation of the proposed project including list of tasks, schedule of tasks, agency/contractor/entity responsible for implementation of the project tasks, adequate time schedules for completion of all tasks, and the anticipated results of the project.

_____Yes _____No

F) Data Credibility - Data used to substantiate a nonpoint source pollutant problem is either included or adequately referenced.

_____Yes _____No _____Not Applicable

G) Maintenance Agreement - Project includes documentation that the project owners, managers, or the sponsoring agency will maintain the project for the life of the project.

_____Yes _____No _____Not Applicable

H) Assessment - Project provides adequate description of the non-instream assessment for water quality improvements funded by either the project owners/managers or the sponsoring agency will throughout the life of the project.

_____Yes _____No _____Not Applicable

Forward Proposal to Section II for Final Project Ranking_____Yes _____No

SECTION II - NPS FINAL PROJECT RANKING TOTAL SCORE

PROJECT NAME :_____

SECTION II - Only statewide initiative or regional on-the-ground implementation projects that have satisfactorily completed Section I requirements may continue for ranking consideration under this section. All criteria listed in this section applies to statewide initiative or regional on-the-ground implementation projects

A. Implementation - The project implements best management practices as part of an approved TMDL, protects threatened waters identified through the State's Nonpoint Source Management Program plan or is part of a special water quality effort (ie. Governor's Bull Trout Conservation Plan, etc.).

1. Project is not included as part of an approved TMDL, protects identified waters, or is not part of a special water quality effort. 0 Pts

2. Project is included as part of an approved TMDL, protects identified waters, or is part of a special water quality effort. 100 Pts

B. Status - Points will be assigned based upon the status in the TMDL schedule, priority of the listed §303(d) water, implications to a threatened or endangered species, impacts to a sole source aquifer, impacts to an outstanding resource water or impacts to sensitive or special resource ground water.

1. Not included on the TMDL schedule, current §303(d) list, or no known special groundwater categories or listings. 0 Pts

2. Low priority §303(d) water body, project is part of the 8-year TMDL schedule, or the project has minimal impacts to a sole source aquifer/sensitive or special resource ground water 20 Pts

3. Medium priority §303(d) water body, suspected impacts to potential or existing threatened or endangered species, project would fit within an approved TMDL, or a sole source aquifer/sensitive or special resource ground water is moderately impacted. 50 Pts

4. High priority §303(d) water body, known impacts to potential or existing threatened or endangered species, project is included as part of the TMDL implementation plan, or a sole source aquifer/sensitive or special resource ground water is highly impacted. 100 Pts

TOTAL THIS PAGE _____

C. Environmental Stewardship Community & Agency Support - Points are awarded based on the commitment to implementing or financing a portion of the proposed project.

1. Community / Agency Commitment
   a. No commitment letters. 0 Pts
   b. One to Two commitment letters. 5 Pts
   c. Three to Four commitment letters. 10 Pts
   d. Five or more commitment letters. 15 Pts

2. Environmental Stewardship
   a. Project incorporates a minimum non-federally funded environmental stewardship component (ex. semi-annual report). 0 Pts

   b. Project incorporates a strong non-federally funded environmental stewardship component through the use public involvement for planning environmental remediation actions, public involvement in project implementation (ex. quarterly newsletter, school, community, agency site tours, etc.), or has specific uses in an implemented TMDL plan. 15 Pts

D. Impacts to Uses - Points will be assigned based upon the documented number of designated beneficial uses impacted by nonpoint source pollutants.

1. Number of use Impacts:
   a. No Impacts 0 Pts
   b. One Use 5 Pts
   c. Two Uses 6 Pts
   d. Three Uses 7 Pts
   e. Four or More Uses 15 Pts

2. State and National Priorities - Points will be assigned based upon recognition of the special status of waters or uses of those waters.

You may answer questions a, b, or c or any combination of the following three statements.

   a. State Priorities - The project impacts either: a State Park or State Recreational Area, a blue ribbon fishery, water classified as a special or outstanding resource water, or designated as part of a sole source aquifer, an area of high ground water vulnerability, or the project enhances the State's nonpoint source management program. 10 Pts

   b. National Priorities - A nonpoint source or statewide initiative project is intended to positively impact either: a threatened or endangered species, a wilderness area, a Wild and Scenic River or a sole source aquifer. 10 Pts

   c. Not Applicable 0 Pts

TOTAL THIS PAGE_____

3. Severity of Impact to Use - Points will be assigned based upon: 1) the number of stream miles impacted; 2) the number of lake/reservoir surface acres impacted; 3) the extent of groundwater impacts to beneficial uses or; 4) the ability of the statewide project to promote nonpoint pollution reduction or remediation Proposed project applicants must include a map showing the impact area of the proposed BMPs to receive more than the minimal score.

   a. Low Impact - Little evident impact is noted due to the nonpoint source contribution or NPS project initiative (i.e., less than 5 miles or 200 acres effected or minor impacts to ground water): 5 Pts

   b. Moderate Impact - Moderate impact is noted due to the nonpoint source contributions or the statewide Nonpoint Source Management Program project (i.e., approximately 5 miles or 200 acres effected or moderate impacts to ground water): 25 Pts

   c. High Impact - Severe impact is noted due to the nonpoint source contribution or the statewide Nonpoint Source Management Program project initiative (i.e., more than 5 miles or 200 acres effected or severe impacts to ground water): 100 Pts

E. Potential for Restoration Points - Points are awarded according to the expected effectiveness of the project and the transferability of the demonstrated technologies to other parts of the State of Idaho.

1. Effectiveness of Project or Improvements - The proposed project will either restore designated or existing beneficial uses, reduce the severity of nonpoint source impacts, or the project will promote statewide nonpoint pollution reduction or remediation

   a. No load reduction or effectiveness calculations provided 0 Pts
   b. Improvements are minor(ex. <25% estimated reduction in pollutant load) or statewide project will require substantial capital/manpower commitment: 15 Pts
   c. Designated or existing beneficial uses of surface or ground water are partially restored or the impacts from the nonpoint source reduced (ex. >25% reduction but <75% reduction in pollutant load) or statewide project will require moderate capital/ manpower commitment: 30 Pts
   d. Designated or existing beneficial uses of surface or ground water are partially restored or the impacts from the nonpoint source reduced (ex. >75% reduction but <100% reduction in pollutant load) or statewide project will require minimal capital/manpower commitment: 100 Pts

2. Demonstration value of proposed project -Points are assigned based upon the transferability of the project technologies to other sites in Idaho.

   a. No additional projects 0 Pts
   b. Project is site specific 5 Pts
   c. Project is applicable statewide 25 Pts

TOTAL POINTS THIS PAGE _____

APPENDIX F - 2
NONPOINT SOURCE MANAGEMENT PROGRAM PLAN SCHEDULE

Section 319 project development generally follows the 1996 EPA grant guidance schedule. However, the EPA schedule is being modified to include review and prioritization by IDEQ, and the appropriate BAGs. The following schedule outlines the NPS program timing milestones. Fixed calendar dates are shown in ***bold italicized*** print.

- September - October - BAGs meet with IDEQ and other designated agencies to determine the nonpoint source implementation projects within their respective basins that are needed to satisfy TMDL requirements or protect high quality ground and surface waters within their respective basins.

- December 1 - IDEQ regional and central offices send out request for project letters with scoping list requesting project proposals. All applicants will be encouraged to submit project proposals for preliminary technical review by IDEQ and other designated agencies by February 15. This enables applicants to revise their project proposals as needed prior to the March 1 deadline.

- ***March 1*** - All draft §319 project proposals are due to IDEQ.

- March Weeks 1 & 2 - IDEQ and appropriate designated agencies perform technical evaluations.

- March Weeks 3-4 and April Weeks 1-4 - BAGs review with regional NPS staff technical merits of eligible §319 projects as determined through technical ranking process. Scores (weakness and strengths) are discussed. BAGs, with regional NPS staff rank the §319 project proposals in order of importance regarding basin restoration efforts.

- May Week 1 - IDEQ upper management and Basin Advisory Group chairs or the designated representative meet to integrate basin projects into a preliminary priority list of §319 projects.

- ***June 1*** - Draft §319 project proposals due to EPA Region 10 and notifies BAGs of the draft §319 projects submitted to EPA.

- ***July 8*** - EPA provides comments (ie. required project revisions) on draft §319 project proposals to IDEQ.
- July Week 3 - Final grant application submitted to the IDEQ administrator for approval.

- ***August 1*** - Final revised §319 proposals (if applicable) and grant application due to EPA Region 10.

- ***October 1*** - EPA makes the §319 grant award to IDEQ.

APPENDIX F - 3
NONPOINT SOURCE MANAGEMENT PROGRAM PLAN PROJECT ELEMENTS

EPA Required Elements

Required NPS Elements:	The following items are required of all Nonpoint Source Program applications and facilitate in the ranking of Nonpoint Source Management Program projects.
1. Purpose	Brief description of why the project is necessary and what benefits will be derived from the project.
2. Environmental Stewardship	How will the proposed project promote environmental stewardship within the project area?
3. Plan for Monitoring Results	How will results of the project be monitored? What long term monitoring will be incorporated into the project design? Who will do the long-term monitoring after the project is completed and how will this monitoring be funded?
4. Characteristics	This section specifically addresses nonpoint source issues.
a. Priority	What is the regional priority of the watershed or water body?
b. NPS Theme	How will this project address the following themes? 1. Successful Solutions 2. Good Science 3. Public Awareness 4. Financial Forces & Incentives 5. Regulatory Programs
c. NPS Category	Within which of the following NPS category does this project fall? Agriculture, silviculture, urban runoff, construction, resource extraction, sewage and land disposal, hydrologic modification, recreation.
d. NPS Secondary	Does this project address a secondary or tertiary category from the above list?
e. Functional	Within which of the following functional categories would the project be placed? watershed projects, statewide programs or best management practices
f. Pollutant Types	List of the known pollutant types which effect the project and may include pollutants which the project will not address.
g. Waterbody Type	Describe the effected water body. Examples would include the following: rivers, perennial streams, natural lakes, reservoirs, etc.

h. Hydrologic Unit Code	This is a code developed by the Department of Interior, United States Geologic Survey (USGS) which describes the reach of water being discussed in the project. This number can be obtained from either IDEQ or by contacting the USGS.

APPENDIX G.

Idaho Nonpoint Source Program Grant Proposal
Paradise Creek TMDL Implementation Project

319 FY 1999 Supplemental Proposal/ 319 FY 2000 Proposal

PROJECT NAME: Implementation of Nonpoint Source Controls (BMPs) to Achieve TMDL Pollutant Load Allocations on Paradise Creek, Latah County, Idaho

PROJECT DESCRIPTION SUMMARY INFORMATION

SUMMARY

The purpose of the following project is to use a watershed approach to implement agricultural, forest, and urban BMPs to reduce nonpoint source loading of TMDL-listed pollutants to Paradise Creek. Loading reductions will be accomplished for the following TMDL listed pollutants: nutrients, ammonia, temperature, flow alteration, pathogens, sediments, and habitat modification.

A. Forest Land Implementation Project

The Paradise Creek TMDL (1997) lists road and skid trail construction associated with forest land harvest activities as a nonpoint source of pollution. Forest lands comprise approximately 2000 acres (14%) of the Paradise Creek Watershed. The Idaho Forest Practices Act (FPA), Title 38, Chapter 13, Idaho Code requires forestry BMPs to be implemented on active logging operations. However, site-specific BMPs that are recommended or required beyond standard FPA rules are implemented on a voluntary basis. Some of these site-specific BMPs are needed for maintenance of older forest roads, which were constructed prior to current FPA rules.

Reforestation will be implemented on private lands within the watershed to convert high-erosion lands into long-term low-erosion forestland. Reforestation may also be used in riparian areas for long-term shading of streams to reduce water temperature. This project will focus on installing silvicultural, site-specific voluntary BMPs which are not required under the Idaho Forest Practices Act (IDAPA 20). Best Management Practices to be installed include: constructing road cross-ditches, rocking rolling dips, rocking the length of a main logging road, stabilizing disturbed areas, and rehabilitating an existing sediment basin. (See Appendix A for more detail.)

B. Agricultural Land Implementation Project

Agricultural lands comprise approximately 10,700 acres (69%) of the Paradise Creek Watershed. Agricultural activities in the watershed contribute approximately 75% of the sediment load to Paradise Creek. For Paradise Creek, there are three groups of Best Management Practices that will be applied to reduce sediment and associated nutrient delivery to stream channels: agronomic, structural, and riparian practices. The USDA Conservation Reserve Program (CRP) is viewed as the program most attractive to eligible landowners for installation of filter strips and riparian/forest buffers. Requested 319 monies will be used to address those agricultural lands (about 10%) within the watershed that are not eligible under CRP. The 319 grant funds would also be used for those Best Management Practices (sediment basins, sediment and erosion control structures, continuous direct seeding) that CRP is unlikely to fund. For a more complete description of the Agricultural Implementation project see Appendix B.

C. County Roads Implementation Project

The public county roads in the Paradise Creek watershed are maintained by the North Latah County Highway District. As outlined in the Paradise Creek TMDL, the county roads contribute 8% of the sediment load to Paradise Creek. By stabilizing road cuts and fills and addressing water conveyance problems, the Highway District anticipates reducing the sediment load from county roads to meet TMDL standards. Additionally, decreased sediment delivery will reduce the input of associated nutrients to the stream. The Highway District will focus on areas with the worst erosion problems. The North Latah County Highway District will implement road BMPs focusing on high-priority problem areas, such as eroding road cut and fill banks and water conveyance problems contributing to nonpoint source pollution.

Unstable, eroding road cut and fill banks will be shaped and stabilized by planting woody and herbaceous vegetation. Additional methods to stabilize the slope and reduce erosion include: erosion control blankets, armoring, and mulching. These treatments will greatly reduce the input of sediment and pollutants to the water course, and in addition the significant increase in available habitat will benefit wildlife. These treatments will also provide aesthetic benefits to county residents.

D. Riparian Vegetation and Streambank Stabilization

<u>Urban Restoration</u>

To reduce the amount of sediment entering Paradise Creek from urban runoff and to alleviate severe erosion occurring along the streambanks, the urbanized riparian floodplain and associated wetlands along Paradise Creek within the City of Moscow

will be re-vegetated with native woody plants and emergent herbaceous wetland plants, respectively. Replacement of "lawn grass" and/or invasive non-native plant species with wetland plants in selected urban areas that are frequently inundated with water from storm events will more effectively filter sediments and pollutants from water before it reaches Paradise Creek. Severely eroding streambanks will be stabilized using bioengineering techniques. This project will build on streambank projects located along railroad, university, and local government property and cover areas within the City of Moscow.

Rural Restorations

To increase the filtering and stabilization effects of the riparian zone, streambanks and tributaries of Paradise Creek will be re-vegetated with wetland plants and native grasses. These vegetative plantings and stabilization activities will reduce nonpoint source pollution entering Paradise Creek through filtering excess sediments and nutrients. Segments of the stream, where channelized, may be re-meandered to restore the hydrology and substrate of the creek channel.

E. Wetlands Restorations with Native Vegetated Buffer Strips

Wetlands within the Paradise Creek watershed will be restored according to their natural hydrological levels (when feasible) using clues from hydric soils, existing hydrology, and vegetation to determine these original levels. These restored wetlands will act as buffers to Paradise Creek for sediment and nutrient runoff, provide water storage benefits for heavy storm events, and provide habitat for waterfowl and other wildlife. Restoration techniques may include: filling ditches, construction of small earthen dikes, breaking drainage tile, and/or shallow excavation of restoration areas. Native herbaceous and woody vegetation will be planted around the wetland (where feasible) to provide cover from erosion, filter excess nutrients and sediments, and to provide habitat for wildlife.

F. Animal Waste Prevention

Large agricultural animals will be fenced out of the stream in urban and/or agricultural sections along Paradise Creek to reduce the amount of pathogens, nutrients, and sediments entering the stream. Riparian vegetation planted within the fenced areas will reduce the amount of pollutants entering the stream.

BACKGROUND

Paradise Creek Watershed Advisory Group

This work is endorsed by the Paradise Creek Watershed Advisory Group (PCWAG), which was nominated by the Clearwater Basin Advisory Group and appointed by the Administrator of the Idaho Division of Environmental Quality under Idaho Code 39-3615 in December of 1996. The PCWAG is charged with providing advice to DEQ on the specific actions needed to control nonpoint and point source pollution that affects the quality of water in Paradise Creek. Administrative staff of the Latah Soil and Water Conservation District (LSWCD) provides clerical support to the group. The City of Moscow provides meeting facilities.

Paradise Creek Management Committee

This work is also in keeping with the watershed-oriented approach of the Paradise Creek Management Committee (PCMC) organized by the Palouse Conservation District (Whitman County, Washington) with funding provided by the Washington Department of Ecology and the U.S. Environmental Protection Agency. High-priority implementation activities identified in the Paradise Creek Watershed Plan (PCD, PCMC, 1997) developed by this committee are those identified for funding in this grant proposal.

Both committees are made up of representatives from several agencies, political entities, educational and research institutions, and interested citizens and Landowners. Members include staff from: Latah Soil and Water and Palouse Conservation Districts; Cities of Moscow and Pullman; Latah and Whitman Counties; University of Idaho and Washington State University University; Palouse-Clearwater Environmental Institute; landowners; operators; and other interested parties. Technical support is provided by Idaho Division of Environmental Quality, U.S. Environmental Protection Agency, and the Washington Department of Ecology.

BENEFICIAL USES

Since 1989, Paradise Creek has been listed as a Water Quality Limited Segment by the Idaho Division of Environmental Quality (DEQ) and the Washington Department of Ecology (WDOE). The current designated beneficial uses protected under the Idaho Water Quality Standards are: cold water biota, secondary contact recreation, and agricultural water supply. Downstream in Washington State, Paradise Creek is classified as a Class A Waterbody protecting it for: domestic, industrial, and agricultural water supply; stock watering; primary contact recreation; aesthetic enjoyment; wildlife habitat; and salmonid and other fish spawning, rearing, migration, and harvesting.

A Use Attainability Assessment of Paradise Creek, Latah County, Idaho (Wertz, DEQ, 1994) conducted by DEQ, recommends that "if the water and habitat quality is improved, Paradise Creek

would be capable of supporting salmonid spawning and cold water biota." Secondary contact recreation and agricultural water supply were confirmed as appropriate designated beneficial uses at that time, as was cold water biota, which was later adopted into the Idaho Code. However, Paradise Creek is not considered to be in full support of these beneficial uses because of impaired macroinvertebrate populations and numerous exceedances of water quality criteria recorded over the last five years. Paradise Creek is currently ranked as a high priority water body on the 1996 303(d) list. A TMDL was completed in December 1997 by DEQ, with assistance from the PCWAG, and was approved by the U.S. EPA in early 1998.

POLLUTANTS

The seven pollutants currently identified on Idaho's 1996 303(d) list as limiting water quality in Paradise Creek are: nutrients, sediment, temperature, flow, habitat alteration, pathogens, and ammonia. Nutrients, ammonia, temperature, and flow lead to eutrophic conditions. Sediment, pathogens, and habitat alteration affect cold water biota and secondary contact recreation. All of these pollutants, with the exception of flow and habitat alteration, have pollutant loads assigned to them in the Paradise Creek TMDL recently completed by DEQ.

The Paradise Creek TMDL (DEQ, 1997) explains water quality relationships in Paradise Creek as follows: "Excessive nutrients and high water temperature lead to algal growth and subsequent dissolved oxygen fluctuations. Temperature and dissolved oxygen within Paradise Creek typically do not meet water quality standards during the low flow period of the year. Excessive sediment impairs cold water biota and habitat. Ammonia is toxic to aquatic organisms and consumes oxygen during nitrification. Fecal coliform concentrations have been measured at seven times the maximum limits set by the Idaho Water Quality Standards for secondary contact recreation."

PROJECT BENEFITS

A. Forestry Implementation Project

This project will install erosion control and drainage stabilization measures on forest roads within the Paradise Creek drainage and adjacent areas, which should reduce the Cumulative Watershed Effects (CWE) road score from a moderate hazard to a low hazard. Reforestation will convert high-erosion lands into long-term low-erosion forestland.

B. Agricultural Implementation Project

The Paradise Creek Agricultural Proposal, when fully implemented, will considerably benefit soil and water resources, as well as users of the resource. Benefits will include:

1) Soil loss reduction from water (sheet, rill, and gully erosion);

2) Decreased sediment delivery, with associated nutrients, to stream channels;
3) Improved water infiltration and storage;
4) Habitat improvements for both fish and wildlife; and
5) Achievement of sediment and phosphorus load reduction targets set in the TMDL.

C. County Roads Implementation Project

By stabilizing road cuts and fills and addressing water conveyance problems, the North Latah County Highway District anticipates reducing the sediment load from county roads to meet TMDL standards. Additionally, decreased sediment delivery will reduce the input of associated nutrients to the stream. The Highway District will focus on the problem areas with the highest erosion problems.

D. Riparian Re-vegetation and Streambank Stabilization

By planting the urbanized riparian and agricultural floodplain and associated wetlands along Paradise Creek with native woody vegetation and emergent herbaceous wetlands plants, stream temperatures will be reduced, dissolved oxygen concentrations will increase, and algae and macrophyte growth will be reduced due to nutrient uptake by the vegetation. Unstable streambanks will be stabilized directly and indirectly through vegetative plantings. Severely eroded vertical streambanks will be stabilized with various "bioengineering" techniques that will not only reduce in-stream erosion potential, but will also improve aquatic habitat. All riparian vegetative plantings will increase in-stream and out of stream habitat diversity as well as reduce overland flow of pollutants.

E. Wetlands Restorations with Native Grass Buffer

The water quality of Paradise Creek will be improved through conducting wetland restoration and native grass planting activities within the Paradise Creek watershed. In agricultural land, comprising approximately 83% of the Paradise Creek watershed, nonpoint source pollutants such as sediments, nutrients, organic materials, pesticides, and herbicides enter the surface water when erosion occurs. Approximately 83% of the total sediments entering the creek are attributed to agricultural runoff. This type of nonpoint source pollution can be greatly reduced (over 80%, estimated) through wetland restorations, native vegetation plantings, and agricultural BMPs.

Through wetland restorations, nonpoint source pollution will be prevented from reaching the creek. As runoff flows through wetlands, the water velocity slows and this

causes organic matter and sediments, including phosphorus, heavy metals and pesticides, to drop out before the water continues to the creek. Additionally, wetland anaerobic and aerobic processes promote de-nitrification, removal of phosphorus, and removal of toxins from water. Wetland plants act as filters to remove excess nutrients from runoff.

By planting a native herbaceous cover to surround the restored wetland, the native plants will act to stabilize the area proximal to the wetland, filter additional sediments and nutrients from runoff, and provide habitat for wildlife.

F. Animal Waste Prevention

Through fencing riparian areas along the creek to exclude livestock, a slight percentage of the needed 75% reduction in nonpoint source fecal colliform loading may be reduced. Although probably negligible in measurable nutrient and/or pathogen-reducing effectiveness, the targeted area to be fenced will be highly visible to the community and may serve as an example of conscientious water resource stewardship.

TREATMENT

A. Forestry Implementation Project

The following BMPs will be implemented within the forested portion (2000 acres) of the Paradise Creek Watershed:

installing road cross-ditches, rocked rolling dips, and other water drainage measures to reduce erosion;
cleaning out the sediment trap in Pond #9;
performing minor dam repair;
rocking of the main logging road to the top of mountain.; and
reforesting high-erosion and riparian sites.

B. Agricultural Implementation Project

The following BMPs will be implemented within the agricultural portion of the watershed:

- planting grassed filter strips and riparian forest/buffers along channels on those agricultural lands not eligible for CRP sign-up;
- treatment of approximately 33,000 linear feet of stream and tributary channel to filter sediment and reduce sediment delivery to Paradise Creek;
- engineering and installing sediment basins (21) and sediment and erosion control structures (52) on upland cropped ground to reduce gully erosion

and trap sediment high in the watershed, preventing sediment delivery to creek channels; and

- initiating Continuous Direct Seeding High Residue Management Systems as a desirable agronomic practice within the Paradise Creek Watershed, which will greatly reduce sheet and rill erosion, keeping soil in the fields away from the creeks.

C. County Roads Implementation Project

The North Latah County Highway District will implement road BMPs focusing on high-priority problem areas, such as eroding road cut and fill banks and water conveyance problems contributing to nonpoint source pollution. Approximately 20% of the county road system will be treated.

Unstable, eroding road cut and fill banks will be shaped and stabilized by planting woody and herbaceous vegetation. Additional methods which may be used to stabilize the slope and reduce erosion include placement of erosion control blankets, armoring, and mulching. These treatments will greatly reduce the input of sediment and pollutants to the water course, and in addition the significant increase in available habitat will benefit wildlife. These treatments will also provide aesthetic benefits to county residents.

D. Riparian Vegetation and Streambank Stabilization

Urban Restoration

Approximately 12,500 linear feet of riparian areas along Paradise Creek on properties owned by private landowners, the City of Moscow, the University of Idaho, and/or the Palouse River Railroad will be re-vegetated with native woody and herbaceous vegetation. Unstable eroded streambanks exist along most of these reaches and will be stabilized with various “bioengineering” techniques. Coir logs pre-planted with herbaceous emergent wetlands vegetation will be installed along those reaches with existing invasive aquatic growths.

Rural Restoration

Approximately 3 linear miles of Paradise Creek and /or its tributaries will be planted with riparian vegetation, including wetland plants to increase the filtering and streambank stabilization effects of the riparian zone. Widths of riparian buffers planted will targeted to meet a minimum of 30 feet but will vary according to the needs of private landowners and the opportunity to complement existing buffer strip programs. Channelized portions of the stream will be re-meandered (where feasible) to restore

hydrology and increase flood storage capacity of the stream (through creation of floodplains).

E. Wetlands Restorations

Approximately 12 acres of wetlands will be restored within the Paradise Creek watershed. A variable-width buffer strip using native vegetation will be established around the perimeter of each wetland to increase the water filtering effectiveness by herbaceous plants.

F. Animal Waste Prevention

Approximately 1600 ft. of fencing will be installed along riparian areas to exclude livestock within the Paradise Creek Watershed.

PROJECT GOALS

To reduce loading of TMDL-listed pollutants to Paradise Creek, including pathogens, nutrients, temperature, sediment, and habitat alteration.

To reduce soil erosion, conserve soil resources and decrease sediment delivery throughout forest and farm lands within the watershed.

To improve water conveyance, stabilize road cuts, and reduce sediment loading associated with road systems in the watershed.

To increase the water resources ethic and stewardship within our community.

To improve fish and wildlife habitat throughout the watershed.

To re-vegetate the urbanized riparian floodplain along Paradise Creek with a native plant community and increase shading to reduce stream temperature.

To re-vegetate the rural streambanks along Paradise creek with a native plant community to increase filtering abilities of the riparian area and create shade to reduce stream temperature.

To stabilize severely eroded streambanks and improve aquatic habitat in Paradise Creek.

To enhance the load capacity of Paradise Creek by increasing the diversity of in-stream emergent herbaceous wetlands plants.

To prevent urban nonpoint source pollution through education of landowners about pollution prevention and streambank stabilization techniques.

To educate the urban/rural community that makes up the Paradise Creek watershed on the functions and values of wetlands and riparian areas.

PROJECT SCHEDULE

2000

January – June

Survey and recruit potential wetland restoration sites, animal exclusion projects, and potential streambank restoration and stabilization areas.

Survey and recruit restoration sites for forestry, agricultural, and road BMPs.

Initiate Continous Direct Seed High Residue Management System demonstration.

July –November

Restore 50% of targeted wetlands

Restore and stabilize streambanks along 50% of targeted length.

Complete riparian fencing.

Install road cross-ditches, rocked rolling dips, Pond #9 maintenance, rock length of main logging road.

Reforest highly-erodible sites and critical riparian sites within the forested portion of watershed.

Stabilize cut and fill banks, improve water conveyance associated with county road system.

Survey and design treatment structures for agricultural riparian and upland BMPs., initiate BMP installation.

2001

January – June

Recruit and survey additional sites for wetland restoration, and streambank restoration and stabilization.

July – October

Restore remaining wetlands.

Complete streambank restoration and stabilization activities.

Complete installation of grassed filter strips, riparian forest buffers, field borders and critical area treatments.

Complete installation of sediment basins and erosion and sediment control structures on agricultural uplands.

Demonstrate Continous Direct Seeding High Residue Management Systems as viable within watershed.

OTHER PROGRAMS AND PROJECTS

This proposal is being submitted by the Paradise Creek Watershed Advisory Group in partnership with the Palouse-Clearwater Environmental Institute, Natural Resources Conservation Service, Latah Soil and Water Conservation District, Idaho Soil Conservation Commission (ISCC), North Latah County Highway District, University of Idaho, City of Moscow, private companies, and landowners. Please refer to the attached map for a comprehensive depiction of implementation projects presently completed/being completed throughout the Paradise Creek Watershed.

Past and Present Pollution Control Efforts within Watershed

In the past, pollution control and watershed restoration efforts for the Paradise Creek Watershed have been targeted at the urban area. The Palouse-Clearwater Environmental Institute has directed projects to survey discharge pipes, reconfigure channel segments, restore floodplains, re-vegetate riparian areas, stabilize streambanks, and construct wetland areas in and adjacent to the city of Moscow. In addition, PCEI manages the Adopt-A-Stream Program and organizes annual trash removal weekends, arranges riparian plantings, and is working on development of a pedestrian/bicycle path along Paradise Creek. The City of Moscow Wastewater Treatment Plant is in the process of upgrading the treatment facility. In the urban area of the Paradise Creek Watershed, projects completed or in progress include:

Engineering of a stream re-meander and creation of a 3-acre floodplain and riparian buffer strip within the City of Moscow to increase flood storage capacity of Paradise Creek and improve water quality (PCEI, completed 1997).

Construction of a 1250 foot floodplain and stream re-meander project with a riparian buffer strip and pocket wetlands within the City of Moscow to improve water quality and provide additional flood storage to Paradise Creek (To be completed spring 1999, PCEI and University of Idaho).

Stabilization of streambanks and establishment of riparian buffer strips along urban landowners' property situated adjacent to Paradise Creek (850 feet completed, additional projects (1000 ft.) to be completed fall 1999, PCEI).

Stabilization of 2800 ft. of streambanks and planting of a native vegetation buffer strip along University of Idaho property (1400 ft. completed, 1400 additional ft. to be completed fall 1999, University of Idaho, PCEI)

Creation of a wetlands treatment system and passive recreation area along Paradise Creek on University of Idaho property to treat a portion of the effluent from the Moscow Wastewater Treatment Plant (Completed fall 1997, University of Idaho, PCEI).

In the forested portion of the watershed, activities associated with timber harvest must comply with the Idaho Forest Practices Act.

On agricultural land within the Paradise Creek watershed, there are several on-going and planned projects which will provide pollution reduction benefits. Projects include:

The Paradise Creek Demonstration Project, involves establishment of a 300-foot wide riparian/forest buffer on 150 acres of agricultural land adjacent to Paradise Creek and two of its tributaries (landowner, NRCS, LSWCD, ISCC, Idaho Department of Fish and Game).

A stream re-meander and riparian buffer strip demonstration project along approximately .75 miles of Paradise Creek on agricultural land (to be constructed fall 1999, landowner, NRCS, LSWCD, PCEI, ISCC).

A riparian/forest buffer along the main channel of Paradise Creek (landowner, PCEI, LSWCD)

Several ponds with associated vegetative wildlife habitat plantings (landowners, NRCS, LSWCD, PCEI, IDFG)

EPA Required Elements

1) PURPOSE

The purpose of this project is to use a watershed approach to implement agricultural, forest, and urban BMPs to reduce nonpoint source loading of TMDL-listed pollutants and meet TMDL targets and Idaho Water Quality standards for Paradise Creek intended to protect designated beneficial uses. Reduction of these pollutants will be accomplished through restoration, enhancement, and/or protection of riparian and wetland areas associated with the stream, and through installation of forest and agricultural BMPs.

2) ENVIRONMENTAL STEWARDSHIP

The Paradise Creek Implementation Project is the on-the-ground application of the approved Paradise Creek TMDL. This project incorporates public involvement through sponsorship by the Paradise Creek Watershed Advisory Group. In addition, volunteer labor will be used during implementation of some Best Management Practices; and a long-term commitment to volunteer monitoring has been made through the University of Idaho relative to several agricultural implementation projects within the Paradise Creek Watershed. In addition, project tours will be conducted to help educate landowners and interested citizens, and to foster participation in implementation of Best Management Practices. Project progress will be reported in articles in *The Palouse Pulse*, the newsletter of the Latah Soil Water Conservation District. The Paradise Creek Watershed Advisory Group holds regularly scheduled meetings open to the public.

These projects will increase community involvement and awareness regarding water quality issues and translate into a more conscientious water resource ethic in the area. Community citizens will actively participate in these project activities by volunteering their time to conduct streambank stabilization and wetland restoration activities.

Citizen involvement will occur on many levels: school groups from elementary and high schools will help to plant vegetation, university students from the University of Idaho (Moscow) and/ or Washington State University (eight miles from Moscow, Idaho) will provide assistance in planning and bioengineering activities and annual monitoring studies. Private landowners will also be involved in the restoration activities. Where possible, neighbors of the landowners establishing stabilization and/or restoration projects will be informed of the restoration activities, and may be asked to contribute to the restoration, either through actively helping to install restoration treatments, or by allowing volunteers to collect native seed or plant cuttings from their property. These actions will increase community awareness and emphasize the importance of working together to accomplish a shared goal to improve water quality.

3) PLAN FOR MONITORING RESULTS

Annually, the Idaho Riparian Team will conduct a Properly Functioning Condition Assessment along the segments of Paradise Creek that flow through rural areas. The first assessment, to be conducted in August 1999, will assess the entire Paradise Creek Watershed, including segments in the forestry, agricultural, and urban portions of Latah County, Idaho, and extending through areas with similar land uses in Whitman County, Washington, where it terminates. This assessment will include the establishment of permanent photo points and several survey cross-sections along the watercourse. Additionally, the Idaho Division of Environmental Quality will select BURP sampling sites to monitor water quality along chosen stream segments.

The Idaho Department of Agriculture (IDA), through the Idaho Association of Soil Conservation Districts (IASCD), the Latah Soil Water Conservation District, the Idaho Soil Conservation Commission (ISCC), and the Natural Resources Conservation Service (NRCS) will monitor results of implementation actions on agricultural lands within the Paradise Creek Watershed. In addition, volunteers from the University of Idaho will conduct annual surveys on some individual agricultural implementation projects, to monitor change over time in species composition and abundance of vegetation and avian species. A monitoring plan is being developed by the Paradise Creek Watershed Group; the agricultural component is being cooperatively developed by staff of the IASCD, IDA, ISCC, NRCS, and LSWCD.

Monitoring will include: 1) in-stream trend monitoring of sediment, nutrients, and temperature at key locations throughout the watershed to track progress toward meeting TMDL goals; 2) BMP implementation monitoring; 3) BMP effectiveness monitoring; 4) annual greenline and wildlife surveys; and 5) annual BURP monitoring. The Properly Functioning Riparian Condition Assessment will be conducted for the Paradise Creek Watershed prior to implementation of most proposed BMPs.

4) CHARACTERISTICS

a) Priority: 1

Paradise Creek is a waterbody listed on the 303(d) list for the State of Idaho. The waterbody was designated a high priority for TMDL development by the State of Idaho. During early 1998, a TMDL for the Idaho portion of the Paradise Creek Watershed was approved by the United States Environmental Protection Agency (EPA). Approximately 32 linear miles of Paradise Creek and its tributaries appear on USGS topographic maps and are impacted by NPS effects.

b) NPS Theme

1) **Successful Solutions**: Through accomplishing BMPs by cooperating with partners from the city, county, state, federal, and private entity levels, these projects may serve as an example for other degraded watersheds in the area, such as the South Fork of the Palouse River.

2) **Good Science:** By using a variety of experts from a wide range of sciences, an ecological approach to restoring water quality within the watershed will be accomplished. Monitoring water quality prior to BMP installation will provide baseline data as to the effectiveness of these practices.

3) **Public Awareness**: Through extensive promotion of BMPs and involving the community in the watershed restoration process, an increased level of stewardship for water resources will be accomplished. A variety of citizens will be involved to complete these projects: school children from local schools, students at the local universities, scout troops and other youth groups, and private landowners. This wide range of citizen involvement will increase public awareness concerning water quality health and issues, inform them of methods that can be used to improve water quality, and increase community water stewardship responsibility.

4) **Financial Forces and Incentives:** Private landowners who are cooperators in the streambank stabilization projects will benefit by losing less of their property to erosion caused by lack of vegetation and unstable streambanks. This benefit will be enjoyed by cooperators within both rural and urban landscapes. Additionally, woody vegetation planted along streams will replace rank stands of invasive grass currently growing alongside many streambanks; this will enhance the aesthetics of the property and may increase property values, especially within urban areas.

Additionally, landowners who cooperate with either wetland and streambank restoration activities will improve habitat for wildlife and provide increased wildlife-based recreational opportunities.

Local government entities will benefit from these projects by having a significant reduction (over 80%) in the amount of sediments that enter and accumulate within the Moscow city limits. This will virtually eliminate the need for costly and controversial dredging practices currently being applied by the City of Moscow to remove sediments. Additionally, the periodic clean-out of road culverts will become less frequent (and less costly) as the creek's sediment loads decrease.

The Natural Resources Conservation Service provides agricultural landowners with financial incentives to restore buffer strips along streams. Some of the rural stream restoration projects will be completed along those sections of stream that will be enrolled into the riparian buffer strip program. These restoration projects will be used for stabilization and re-vegetation activities conducted within the stream channel and will not supplant the landowners' required cost share for the buffer strips.

5) **Regulatory Programs:** A Total Maximum Daily Load (TMDL) was completed on December 24, 1997 (Section 303(d) of the federal Clean Water

Act) and approved in early 1998. These projects are targeted to meet the established TMDL standards on the Paradise Creek watershed upstream of the Moscow Wastewater Treatment Plant.

c) **NPS Category** Agriculture, urban runoff, hydrologic modification, recreation, construction.

d) **NPS Secondary** Choose from NPS Category above.

e) **Functional** Watershed projects- implementation.

f) **Pollutant Types** The pollutants identified for Paradise Creek from the 1996 303(d) list are nutrients, ammonia, sediment, thermal modification, flow, habitat alteration, and pathogens.

g) **Water Body Type** Streams, wetlands.

h) **Hydrologic Unit Code** 17060108 – 02100.00.

5) TASKS

Task 1: Recruit landowners in priority restoration areas within agricultural lands of the Paradise Creek Watershed for installation of grassed filter strips, riparian/forest buffers, sediment basins, sediment and erosion control structures, field borders and critical area treatments.

Assignment 1 Latah SWCD/NRCS/SCC
Output 1: Obtain restoration agreements.
Milestone 1: June 2000

Task 2: Survey and design appropriate treatment structures for riparian and upland BMPs.

Assignment 2: Latah SWCD/NRCS/SCC
Output 2: Completed project plans and engineering designs
Milestone 2: September 2000

Task 3: Install grassed filter strips and riparian/forest buffers along stream channels within the agricultural portion of the Paradise Creek Watershed. Areas targeted will be those riparian areas not eligible for USDA Conservation Reserve Program monies.

Assignment 3: Latah SWCD/NRCS/SCC
Output 3: Riparian BMP installation completion
Milestone 3: September 2001

Task 4: Install sediment basins (21) and erosion and sediment control structures (52) on agricultural lands.

Assignment 4: Latah SWCD/NRCS/SCC
Output 4: Structural BMPs installed
Milestone 4: September 2001

Task 5: Install field borders and critical area treatments.

Assignment 5: Latah SWCD/NRCS/SCC
Output 5: Treat 20 acres
Milestone 5: October 2001

Task 6: Establish Continuous Direct Seeding High Residue Management Systems, to show feasibility within the Paradise Creek Watershed.

Assignment 6: Latah SWCD/NRCS/SCC
Output 6: Farming 600 acres managed for two growing cycles using system
Milestone 6: October 2001

Task 7: Install road cross-ditches, rocked rolling dips, and other water drainage measures to reduce erosion.

Assignment 7: Idaho Department of Lands and Bennett Tree Farms
Output 7: BMPs installed
Milestone 7: November 2000

Task 8: Clean out Pond #9 sediment trap and complete minor dam repair.

Assignment 8: Idaho Department of Lands and Bennett Tree Farms
Output 8 Task completion
Milestone 8: November 2000

Task 9: Rock main logging road to the top of mountain.

Assignment 9: Idaho Department of Lands and Bennett Tree Farms
Output 9: Task completion
Milestone 9: November 2000

Task 10: Reforest high erosion and riparian sites.

Assignment 10: Idaho Department of Lands with assistance from the Latah Soil Water Conservation District

Output 10: Treatment of critical sites.

Milestone 10: November 2000

Task 11: Sign up landowners along targeted priority restoration areas for streambank stabilizaton and wetlands restoration projects.

Assignment 11: PCEI, with help from the City of Moscow and/or the Latah SWCD and NRCS offices.

Output 11: Obtain restoration agreements.

Milestone 11: June 2000

Task 12: Survey and design appropriate treatment structures for wetland and streambank restoration activities.

Assignment 12: PCEI with help from private engineering consultants and/or the University of Idaho.

Output 12: Completed plans and any required permits for fencing project, wetland and streambank stabilization projects.

Milestone 12: June 2000

Task 13: Restore 50% of the wetlands and streambanks identified as priority areas by the cooperating partners (City of Moscow, LSWCD, NRCS, SCC); complete fencing project.

Assignment 13: PCEI with extensive help from community volunteers

Output 13: Completed restoration of 50% of outlined streambank and wetland restoration projects. Completion of 1600 ft. fencing project.

Milestone 13: October 2000

Task 14: Survey and design structures for remainder wetland and streambank restoration projects.

Assignment 14: PCEI with help from private engineering consultants and/or the University of Idaho.

Output 14: Obtain required permits and plans for streambank and wetland restorations.

Milestone 14: June 2001

Task 15: Complete streambank and wetland restoration projects.

Assignment 15: PCEI with volunteers.

Output 15: Completed restoration of wetlands and streambanks.

Milestone 15: October 2001

Task 16: Stabilize cut and fill banks.

Assignment 16: North Latah County Highway District with assistance from PCEI and LSWCD

Output 16: Stabilization completed in high priority (15% to 25% of county road system).

Milestone 16: June 2000

Task 17: Improve road-related water conveyance systems.

Assignment 17: North Latah County Highway District, with assistance from PCEI and LSWCD.

Output 17: Completed project plans and engineering designs

Milestone 17: June 2000

6) CONTACTS

Federal

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7) BUDGET

PARADISE CREEK TMDL IMPLEMENTATION PLAN
FY 1999 & FY2000 REQUESTS

DESCRIPTION	UNIT PR	QUANTITY	COST	MATCH	SOURCE	319 REQUEST
		FY 1999 REQUEST				
Agriculture BMPs						
Filter Strips	$80/ac	34 acres	$2,720	$560	priv land	$2,160
Riparian Forest Buffer	$600/ac	56	$33,600	$8,400	priv land	$25,200
Sediment Basins	$2,500 ea	21 basins	$52,500	$13,125	priv land	$39,375
Sed & Erosion Cont Stru	$2,000 ea	52 struct	$104,000	$26,000	priv land	$78,000
Field Bord & C Area Tre	$500/acre	20 acres	$10,000	$2,500	priv land	$7,500
Cont Direct Seed H Res	$50/acre	1200 acres	$60,000	$15,000	priv land	$45,000
Monitoring grant				$78,000	State funds	$0
Monitoring				$1,700	student vol	$0
Subtotals			$262,820	$145,285		$197,235
Forestry BMPs						
Exc forest road imp-D-5	$68/hr	11 days	$6,000	$6,000	Bennett Tree	$0
Exc forest road imp-225	$90/hr	4 days	$3,500		IDL	$3,500
Rock		1500 ft.	$3,000			$3,000
Exc Pond 9 repair-225ex	$90/hr	2 days	$1,500		IDL	$1,500
Exc Pond 9 repair-dump	$55/hr	2 days	$1,000		IDL	$1,000
Road rocking pond 9	$10,000/mile	1.5 miles	$15,000	$7,750	Bennett Tree	$7,250
Grass seeding & mulchin	$1,000		$1,000		IDL	$1,000
Reforestation	$200/ac	50 acres	$10,000	$6,400	IDL, private	$3,600
Subtotals			$41,000	$20,150		$20,850

DESCRIPTION	UNIT PR	QUANTITY	COST	MATCH	SOURCE	319 REQUEST
Urban Riparian Restoration						
Excavate Streambanks	$4 /cu yd	40000	$160,000	$160,000	City of Mosc	$0
Survey and Engineer Tre	$70/hr	500	$35,000	$35,000	City of Mosc	$0
Eros Cont Blanket	$1.57/sq yd	20000	$31,400	$9,420	BonTerraÖ	$21,980
12" Biologs*	$8.93/ft	4500	$40,185	$12,056	BonTerraÖ	$28,130
Aircraft cable	$.50/ft	1400	$700		M. Lumber	$700
Coniferous trees for ba	$10 per tree	350	$3,500	$3,500	Univ Idaho	$0
Duckbill anchors	$10 /anchor	350	$3,500		Wheeler Cons	$4,000
Cedar tree logs	$3000/load	2 loads	$6,000		PCEI	$6,000
Herb Plants for Coir L	35/plant	25,000	$8,750		Wildife Habi	$8,750
Plant / Grow Biologs*	$15 per foot	4000	$60,000	$6,000	Wildlife Hab	$54,000
Hydroseed Streambanks	$0.08/sqft	185500	$14,840	$7,420	Apex Hydrose	$7,420
Large woody plants for	$10/plant	1500	$15,000		Clifty View	$15,000
Woody Plants for Stream	$1.00 per pl	22000	$22,000		Wildlife Hab	$22,000
Woody plants for upper	$1.50 per pl	8500	$12,750		LawyerÆs Nur	$12,750
Plant Protectors	$.60/prot	8500	$5,100		Forestry Sup	$5,100
Tree Mats and staples	$.70/mat	8500	$5,950		Wildlife Hab	$5,950
Herbaceous Plants for R	$0.50 per pl	15950	$7,975	$798	Wildlife Hab	$7,178
Project Labor constr/ma	$18.23/hr	5550	$112,598		PCEI staff	$112,598
Project Labor (PCEI vol	$15/hour	9000	$135,000	$135,000	PCEI volunteers	
PCEI supplies/materials/travel			$20,000	$10,000	PCEI	$10,000
Subtotals			$700,248	$379,193		$321,555
Animal Waste Prevention						
Fence materials	$.87/foot	1015	$883		$883	
Nose Pumps	$400 each	2	$800			$800
Project Labor coord/con	$18.23/hr	120	$2,316		PCEI, volunteers	$2,316
Project Labor (PCEI vol	$15 per hour	145	$2,175	$2,175	PCEI, volunt	$0
Subtotals			$6,174	$2,175		$3,999

DESCRIPTION	UNIT PR	QUANTITY	COST	MATCH	SOURCE	319 REQUEST
Roadside Erosion Control						
Stabilization of cut and fill banks			$40,000	$20,000	LatahHwyDist	$20,000
Impr water convey systems			$35,000	$15,000	LatahHwyDist	$20,000
Hydroseed stabilized banks	$0.08/sq ft	100000	$8,000	$4,000	Apex Hydrose	$4,000
Woody native plants to	$1.00/plant	3750	$3,750		Wildlife Hab	$3,750
Plant Protectors	$.60/prot	3750	$2,250		Forestry Sup	$2,250
Project labor coord/maint	$18.23/hr	750	$11,349		PCEI, volunt	$11,349
Project labor (voluntee	$15.00/hr	700	$10,500	$10,500	PCEI, volunt	$0
Subtotals			$100,349	$49,500		$61,349
Project Administration						
Staffing costs+A103	$15.83/hr	1615	$25,565			$25,565
Fringe benefits, insura	at 30%		$7,670			$10,790
Indirect costs	at 10%		$3,324			$3,636
Subtotals			$ 36,559			$ 39,991
			$1,147,149	$596,303		$644,978
					Req match	$429,985
					Excess match	$166,318
					Grant Request	$644,978
					Total Project	$1,241,281

DESCRIPTION	UNIT PR	QUANTITY	COST	MATCH	SOURCE	319 REQUEST
			FY2000 REQUEST			
Rural Riparian Restoration						
Excavation	**$4/cu yd**	**30000**	**$120,000**	**$26,000**	**PCEI, landow**	**$94,000**
Engineer Wetlands	**lump sum**	**100**	**$8,800**	**$2,200**	**TerraGraphic**	**$6,600**
Survey	**$100/sec**	**100**	**$10,000**	**$2,300**	**Private cons**	**$7,700**
Duckbill anchors	**$10/anch**	**400**	**$4,000**			**$4,000**
Equipment Rental/Purch			**$10,000**	**$4,000**	**PCEI, landow**	**$6,000**
Bank Protection Rock	**$100/load**	**20**	**$2,000**		**Private cont**	**$2,000**
Cedar Logs	**$3000/truck**	**2**	**$6,000**	**$2,000**	**PCEI, Potlat**	**$4,000**
Coniferous Trees for St	**$10 per tree**	**400**	**$4,000**	**$4,000**	**Univ Idaho**	**$0**
Herbaceous Native Seed	**$300/acre**	**7**	**$2,100**		**Grasslands W**	**$2,100**
12" Biologs	**$8.93/ft**	**2000**	**$17,860**	**$7,860**	**BonTerra Ame**	**$10,000**
Woody Plants for Ripari	**$1 per plant**	**10560**	**$10,560**		**Wildlife Hab**	**$10,560**
Herbaceous Plants for R	**$0.50 per pl**	**15840**	**$7,920**	**$792**	**Wildlife Hab**	**$7,128**
Plant Protectors	**$1.30 per pl**	**15840**	**$20,592**	**$2,059**	**Wildlife Hab**	**$18,533**
Geotextile fabric	**$1.57 per sq**	**32000**	**$50,240**	**$12,560**	**BonTerra Ame**	**$37,680**
Supplies/Materials/Travel			**$22,000**	**$12,000**	**PCEI**	**$10,000**
Project Support	**$20 per hr**	**1000**	**$20,000**	**$20,000**	**PCEI**	**$0**
Project Labor cood/main	**$18.23/hr**	**6500**	**$136,200**		**PCEI staff**	**$136,200**
Project Labor (voluntee	**$15 per hr**	**9000**	**$135,000**	**$135,000**	**PCEI volunteers**	
Subtotals			**$587,272**	**$230,771**		**$356,501**
Wetlands Restoration						
Engineer Wetlands	**Lump Sum**		**$4,800**	**$1,200**	**TerraGraphic**	**$3,600**
Survey	**$100/cr sec**	**53**	**$5,300**	**$300**	**Private cons**	**$5,000**
Earth Moving	**$4/cu yd**	**2500**	**$10,000**	**$2,000**	**PCEI/Landown**	**$8,000**
Native grass seed	**$300/acre**	**2**	**$500**		**PCEI**	**$500**
Woody Plants for Wetlan	**$1.00/plant**	**2000**	**$2,000**		**PCEI**	**$2,000**
Project Support	**$20/hr**	**500**	**$10,000**	**$10,000**	**PCEI**	**$0**
Project Labor, Mainten	**$21.45/hr**	**500**	**$10,725**		**PCEI**	**$10,725**

DESCRIPTION	UNIT PR	QUANTITY	COST	MATCH	SOURCE	319 REQUEST
Project Labor (voluntee	**$15/hr**	**1000**	**$15,000**	**$15,000**	**PCEI, volunt**	**$0**
Herbaceous Plants for R	**$0.50/6 cu I**	**15840**	**$7,920**	**$2,010**	**Wildlife Hab**	**$5,910**
Subtotals			**$66,245**	**$30,510**		**$35,735**
Project Administration						
Staffing costs	**$16**	**1650**	**$26,120**			**$26,120**
Fringe benefits	**at 30%**		**$7,836**			**$7,836**
Indirect costs	**at 10%**		**$3,396**			**$3,396**
Subtotals			**$37,351**			**$37,351**
Subtotals			**$690,868**	**$261,281**		**$429,587**
					Required match	**$286,391**
					Excess match	**($25,110)**
					Grant Request	**$429,587**
					Total Project	**$690,868**

Budget Narrative: Project Labor and Costs (PCEI)

Both the Urban and Rural Riparian Restoration labor totals 6,500 hours each over the two-year period of this grant. The number of hours is based on our experience of the work necessary to complete the restoration of stream miles that we have specified. Each task includes 1.5 Full Time Equivalents per year plus additional volunteer coordination assistance during the three-month low flow restoration period (1.5 FTE * 2000 hours/year * 2 years) + too summer hours = 6500 hours. The per hour rate is $21.45. This rate includes all salary, taxes, insurance (medical and worker's comp), and other salary expenses. Staff will coordinate volunteers, provide technical expertise, draft and submit all necessary permits, communicate with landowners, coordinate construction and design activities, and communicate with other project entities.

This figure was carefully calculated based on real field experience obtained working on five 319 contracts with DEQ to date in both rural and urban areas. Labor costs will also be incurred on a seasonal basis in response to technical need and volunteer coordination in these tasks: Wetland Restoration, Animal Waste Prevention, and Roadside Erosion Control.

The budget item entitled supplies/materials/travel is based on our previous project experience as well. This item includes all extra material costs used in the field such as fabric stables and stakes, as well as travel and communication needs.

Project Administration costs include:

Staffing costs (30 hours per week for 2 years, at $15.00 per hour);
Fringe benefits (at 30%, plus cost for medical insurance for 2 years); and
Indirect costs (at 10%).

Funding for items 1 and 2 (staffing costs and fringe benefits) would cover staff costs associated with:

- administering the grant,
- increasing participation in the installation of implementation strategies; and
- coordinating activities between the various grant participants, technical advisers/cooperators, and the landowners/cooperators (City of Moscow, North Latah County Highway District, Palouse-Clearwater Environmental Institute, Bennett Lumber Company, Idaho Department of Lands, Idaho Soil Conservation Commission, Idaho Association of Soil Conservation Districts, Natural Resources Conservation Service, Latah County Commissioners and Planning and Zoning Department, and Latah Soil and Water Conservation District),

These staff duties would include the following tasks:

- set up and maintain fiscal records;
- disburse funds to entities overseeing specific tasks;
- act as liaison between various grant participants (completion of many of the tasks will involve cooperation between two or more entities);
- work closely with staff of PCEI, the City of Moscow, the North Latah County Highway District, Bennett Lumber Company, the Idaho Department of Lands, the University of Idaho, Moscow High School, the Natural Resources Conservation District, the Soil Conservation Commission, the Idaho Association of Soil Conservation Districts, and Latah County on project planning, coordination, implementation, and evaluation;
- assist in identification of priority sites for implementation of specific practices;
- contact landowners to encourage their participation in installation of BMPs; set up contracts with landowners/cooperators for installation of practices in the non-urban settings;
- disburse funds to participating landowners/cooperators;
- produce and collect information from all grant participants on progress;
- combine information from all grant participants and prepare quarterly reports to DEQ; distribute copies to all grant participants;
- prepare and present summaries of progress to grant participants and other entities, as requested;
- disseminate information on progress in Paradise Creek through periodic newsletters, directed to landowners and interested entities and agencies;
- research erosion control and floodplain protection ordinances for rural residential development;
- work with Latah County Planning and Zoning Departments to implement policies and regulations to reduce or eliminate development within the floodplain and to prevent erosion from development in the rural setting;
- research and develop site-specific species planting lists and conservation plans;
- arrange, coordinate, and design long-term monitoring of specific sites by university and high school students and volunteers;
    - annual vegetation surveys in and adjacent to stream and on uplands, to detect trends in establishment/expansion/survival of planted vegetation, and to detect changes in stream channel configuration;
    - annual breeding bird surveys, to detect change in use/presence of wildlife, using annual bird surveys as an index to wildlife use.
- recruit volunteer labor for various tasks
    - volunteer labor pools could be developed through contacts with environmental clubs, birding groups, plant societies, and sportsmen's groups;
    - tasks could involve fencing riparian areas, planting vegetation in riparian/forest buffers or along roadbanks, and weed control.
- provide clerical and administrative support to the Paradise Creek Watershed Advisory Group, including:

arrange, provide notice of, and conduct public meeting(s) to solicit public input on the ag portion of the Implementation Plan;

participate in preparation of the final draft of the Implementation Plan; photocopy and collate copies of the final Implementation Plan; prepare cover letters and distribute copies;

prepare press releases and news articles on the Implementation Plan, the 319 grant funding, and progress toward accomplishment of tasks; may involve offering tour(s) to news reporters;

attend monthly meetings of the Paradise Creek Watershed Advisory Group (PCWAG) and the Monitoring Subcommittee (MS); taking minutes at each meeting;

prepare for monthly meetings of the PCWAG and MS by developing agendas, securing speakers (when needed), completing minutes, and preparing mailings and press releases;

review notices of hearings on requests for rezone or conditional use permits within Paradise Creek Watershed; prepare and deliver comments, as directed by members of the PCWAG.

organize and coordinate preparations for watershed-level assessment:

act as liaison between multiple entities, agencies, and individuals (including Palouse Conservation District in Whitman County, Washington, Idaho Department of Fish and Game, Bureau of Land Management, Palouse-Clearwater Environmental Institute, Natural Resources Conservation Service, Idaho Soil Conservation Commission, Idaho Association of Soil Conservation Districts, Latah Soil and Water Conservation District, Planning Departments for Latah County, Idaho and Whitman County, Washington, and landowners) to identify data gaps, gather relevant information, stratify stream segments, contact landowners for access, complete the two-week on-site assessment of the Paradise Creek Watershed, compile and analyze the collected data, prepare a final report, and present results and recommendations in written and verbal formats to participants, stakeholders, news media, and the public.

identify and pursue additional funding sources for activities and practices that will complement and enhance tasks accomplished with the 319 funding; for example:

recruit additional landowners interested in animal waste control; enlist volunteer labor for fencing and planting; seek funding for fencing from

interested entities, such as the Idaho Department of Fish and Game;

identify and pursue funding for, and develop, educational brochures; for example:

on riparian restoration (values, benefits, techniques, appropriate plants)

on erosion control for rural residential development (techniques, benefits, plants, etc., for developers and homeowners)

identify landowners willing to place riparian areas in easement; identify potential funding sources for easements (for instance, Palouse Land Trust, Idaho Department of Fish and Game); and assist in linking landowners and purchasers of easements

and perform other duties and activities as necessary

Funding for item 3 would be used as follows:

To cover costs of photocopies, development of presentation materials (such as slides or overheads), and costs of mailings.

Projections for staffing and indirect costs are based on past experience. The Latah Soil and Water Conservation District (LSWCD) has provided support to the Paradise Creek Watershed Advisory Group (PCWAG) for several years.

This support has included clerical support, including staff time to prepare for meetings, develop agendas, schedule speakers, make phone calls, and complete and mail minutes, agendas, and miscellaneous items, etc. The LSWCD has also covered mailing and photocopying costs for minutes and notices, press releases, maps, and newsletters. The indirect costs, to cover a two-year period, are intended to cover ongoing costs associated with normal requirements of support for the PCWAG, as well as additional anticipated costs associated with Paradise Creek newsletters, notices of meetings, arrangements for public meetings, and outreach letters (for instance, to request permission for access for riparian assessment, or to describe and encourage additional participation in installation of BMPs).

The estimate for need for administrative staff support time is also based on experience. Over the past several months, the LSWCD's District Administrator has spent, on average, between 2/3 and 3/4 of her time on activities and tasks associated with the Paradise Creek Watershed. This includes time spent on duties associated with support for the PCWAG and the PCWAG's Monitoring Subcommittee; attendance at several related public meetings on Paradise Creek; gathering information and preparing several grant proposals and soliciting letters of support; presenting information on the draft implementation plan and grant proposal to several different entities; preparing and presenting a paper at the Water Quality Beyond 2000 Conference; attending training on the riparian assessment methodology; gathering information for, and coordinating, workshops on the riparian assessment methodology. Continuation and expansion of time spent on the foregoing activities, as well as those tasks listed earlier, is conservatively estimated to require at least 30 hours per week over the two-year period.

Summary Budget Information

PROJECT NAME: Implementation of Nonpoint Source Controls (BMPs) to Achieve TMDL Pollutant Load Allocations on Paradise Creek, Latah County, Idaho

Budget Categories	319 Grant Funds	Local Match	Category Total
Staffing Cost	$54,600.00	$0.00	$54,600.00
Fringe Benefits (30%)	$19,500.00	$0.00	$19,500.00
Indirect Costs (10%)	$7,410.00	$0.00	$7,410.00
Supplies, Operating, and	$1,042,416.00	$840,747.00	$1,883,163.00
Grand Total	**$1,123,926.00**	**$840,747.00**	**$1,964,673.00**

The Latah Soil and Water Conservation District was designated as the lead agency for this proposal by the Paradise Creek Watershed Advisory Group. The Latah Soil and Water Conservation District has accepted that responsibility and is committed to administering the implementation program in the Paradise Creek Watershed.

Signed: _____

Kevin Meyer
Chairman
Latah Soil and Water Conservation District